FILE 'HOME' ENTERED AT 16:37:21 ON 29 NOV 2001

=> file registry
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.15	0.15

FILE 'REGISTRY' ENTERED AT 16:37:38 ON 29 NOV 2001
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STRUCTURE FILE UPDATES: 28 NOV 2001 HIGHEST RN 372137-98-9
DICTIONARY FILE UPDATES: 28 NOV 2001 HIGHEST RN 372137-98-9

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> E "P-TOLUENE-SULFONAMIDE"/CN 25
E1 1 P-TOLUENE-3-NITROARSONIC ACID/CN
E2 1 P-TOLUENE-N-ETHYLSULFONAMIDE/CN
E3 0 --> P-TOLUENE-SULFONAMIDE/CN
E4 1 P-TOLUENEARSONIC ACID/CN
E5 1 P-TOLUENEARSONIC ACID, .ALPHA.-ACETAMIDO-/CN
E6 1 P-TOLUENEARSONIC ACID, .ALPHA.-AMINO-/CN
E7 1 P-TOLUENEARSONIC ACID, .ALPHA.-PHENYL-/CN
E8 1 P-TOLUENEARSONIC ACID, 2,2'-((1,8-DIHYDROXY-3,6-DISULFO-2,7-NAPHTHYLENE)BIS(AZO))DI-/CN
E9 1 P-TOLUENEARSONIC ACID, 2-((7-((O-ARSONOPHENYL)AZO)-1,8-DIHYDROXY-3,6-DISULFO-2-NAPHTHYL)AZO)-/CN
E10 1 P-TOLUENEARSONIC ACID, 2-(METHYLTHIO)-/CN
E11 1 P-TOLUENEARSONIC ACID, 2-AMINO-/CN
E12 1 P-TOLUENEARSONIC ACID, 2-NITRO-/CN
E13 1 P-TOLUENEARSONIC ACID, DIALLYL ESTER/CN
E14 1 P-TOLUENEARSONIC ACID, DIBUTYL ESTER/CN
E15 1 P-TOLUENEARSONIC ACID, DIETHYL ESTER/CN
E16 1 P-TOLUENEARSONIC ACID, ION(2-)/CN
E17 1 P-TOLUENEARSONIC ACID, MAGNESIUM SALT/CN
E18 1 P-TOLUENEARSONIC ACID, TIN(2+) SALT (1:1)/CN
E19 1 P-TOLUENEARSONIC ACID, TRITHIO-, DISODIUM SALT/CN
E20 1 P-TOLUENEARSONOUS ACID, .ALPHA.-((CARBAMOYLMETHYL)CARBAMOYL)-/CN
E21 1 P-TOLUENEARSONOUS ACID, BIS(1-BUTYL-2-BUTENYL) ESTER/CN
E22 1 P-TOLUENEARSONOUS ACID, BIS(1-ETHYL-2-BUTENYL)ESTER/CN
E23 1 P-TOLUENEARSONOUS ACID, BIS(1-ETHYLALLYL) ESTER/CN
E24 1 P-TOLUENEARSONOUS ACID, BIS(1-PHENYLALLYL)ESTER/CN
E25 1 P-TOLUENEARSONOUS ACID, BIS(1-PROPYL-2-BUTENYL) ESTER/CN

=> E "P-TOLUENESULFONAMIDE"/CN 25

E26 1 P-TOLUENESULFON-P-ANISIDIDE, N-METHYL-2'-NITRO-/CN
E27 1 P-TOLUENESULFON-P-ANISIDIDE, N-METHYL-3'-NITRO-/CN
E28 1 --> P-TOLUENESULFONAMIDE/CN
E29 1 P-TOLUENESULFONAMIDE POTASSIUM SALT/CN
E30 1 P-TOLUENESULFONAMIDE SODIUM SALT/CN
E31 1 P-TOLUENESULFONAMIDE,
((BUTYLAMINO)((N-((P-CHLOROPHENYL)SULFONYL)-N'-PROPYLAMIDINO)THIO)METHYLENE)-/
CN
E32 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS(N,N-DIMETHYL-/CN
E33 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS(N,N-DIMETHYL-, COMPD. WITH
3,3-DIMETHYL-7-OXO-6-(3-PHENOXYPROPIONAMIDO)-4-THIA-1-AZABICYCLO(3.2.0)HEPTANE
-2-CARBOXYLIC ACID (1:2)/CN
E34 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS(N,N-DIMETHYL-, COMPD. WITH
6-(2,6-DIMETHOXYBENZAMIDO)-3,3-DIMETHYL-7-OXO-4-THIA-1-AZABICYCLO(3.2.0)HEPTAN
E-2-CARBOXYLIC ACID (1:2)/CN
E35 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS(N,N-DIMETHYL-, COMPD. WITH PENICILLIN V
(1:2)/CN
E36 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS(N,N-DIMETHYL-, DIACETATE/CN
E37 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS(N,N-DIMETHYL-, DIHYDROCHLORIDE/CN
E38 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS(N,N-DIMETHYL-, PICRATE/CN
E39 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS(N-METHYL-/CN
E40 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS(N-METHYL-, COMPD. WITH
3,3-DIMETHYL-7-OXO-6-(3-PHENOXYPROPIONAMIDO)-4-THIA-1-AZABICYCLO(3.2.0)HEPTANE
-2-CARBOXYLIC ACID (1:2)/CN
E41 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS(N-METHYL-, COMPD. WITH
6-(2,6-DIMETHOXYBENZAMIDO)-3,3-DIMETHYL-7-OXO-4-THIA-1-AZABICYCLO(3.2.0)HEPTAN
E-2-CARBOXYLIC ACID (1:2)/CN
E42 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS(N-METHYL-, COMPD. WITH PENICILLIN V
(1:2)/CN
E43 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS(N-METHYL-, DIHYDROCHLORIDE/CN
E44 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS(N-METHYL-, PICRATE/CN
E45 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS-/CN
E46 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS-, COMPD. WITH
3,3-DIMETHYL-7-OXO-6-(3-PHENOXYPROPIONAMIDO)-4-THIA-1-AZABICYCLO(3.2.0)HEPTANE
-2-CARBOXYLIC ACID (1:2)/CN
E47 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS-, COMPD. WITH
6-(2,6-DIMETHOXYBENZAMIDO)-3,3-DIMETHYL-7-OXO-4-THIA-1-AZABICYCLO(3.2.0)HEPTAN
E-2-CARBOXYLIC ACID (1:2)/CN
E48 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS-, COMPD. WITH PENICILLIN V (1:2)/CN
E49 1 P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(ETHYLENEDIIMINO)BIS-, PICRATE/CN

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E50             1     P-TOLUENESULFONAMIDE,
.ALPHA.,.ALPHA.'-(IMINO-9H-PURINE-6,9-DIYL)BIS-/CN

=> S E28
L1              1 P-TOLUENESULFONAMIDE/CN

=> DIS L1 1 RN CCN

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2001 ACS
RN   70-55-3  REGISTRY
CN   Benzenesulfonamide, 4-methyl- (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   p-Toluenesulfonamide (8CI)
OTHER NAMES:
CN   4-Methylbenzenesulfonamide;  4-Methylphenylsulfonamide;
     4-Tolylsulfonamide;  p-Methylbenzenesulfonamide;  p-Tolylsulfonamide;
     p-Tosylamide;  Plasticizer 15;  Toluene-4-sulfonamide;  Tolylsulfonamide;
     Tosylamide;  Uniplex 173


=> DIS L1 1 FIDE

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2001 ACS
RN   70-55-3  REGISTRY
CN   Benzenesulfonamide, 4-methyl- (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   p-Toluenesulfonamide (8CI)
OTHER NAMES:
CN   4-Methylbenzenesulfonamide
CN   4-Methylphenylsulfonamide
CN   4-Tolylsulfonamide
CN   p-Methylbenzenesulfonamide
CN   p-Tolylsulfonamide
CN   p-Tosylamide
CN   Plasticizer 15
CN   Toluene-4-sulfonamide
CN   Tolylsulfonamide
CN   Tosylamide
CN   Uniplex 173
FS   3D CONCORD
MF   C7 H9 N O2 S
CI   COM
LC   STN Files:   AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CAOLD,
       CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM,
EMBASE,
       GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS,
       PROMT, RTECS*, SPECINFO, TOXCENTER, TOXLIT, ULIDAT, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:   DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)

Ring System Data

Elemental|Elemental| Size of |Ring System|   Ring    |   RID
Analysis |Sequence |the Rings|   Formula  |Identifier|Occurrence
   EA    |   ES    |   SZ    |    RF      |   RID    |  Count
=========+=========+=========+============+==========+==========
C6       |C6       |6        |C6          |46.150.18 |1
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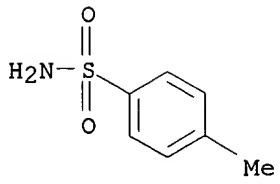

Calculated Properties (CALC)

CODE	PROPERTY	VALUE	CONDITION	NOTE
HD	H donors	2		ACD (1)
HAC	H acceptors	3		ACD (1)
MW	Molecular Weight	171.22		ACD (1)
LOGP	logP	0.786+/-0.207		ACD (1)
LOGD	logD	0.79	pH 1	ACD (1)
LOGD	logD	0.79	pH 4	ACD (1)
LOGD	logD	0.79	pH 7	ACD (1)
LOGD	logD	0.78	pH 8	ACD (1)
LOGD	logD	0.57	pH 10	ACD (1)
PKA	pKa	10.20+/-0.10	Most Acidic	ACD (1)
SLB.MOL	Molar Solubility	>=0.01 - <0.1 mol/L	pH 1	ACD (1)
SLB.MOL	Molar Solubility	>=0.01 - <0.1 mol/L	pH 4	ACD (1)
SLB.MOL	Molar Solubility	>=0.01 - <0.1 mol/L	pH 7	ACD (1)
SLB.MOL	Molar Solubility	>=0.01 - <0.1 mol/L	pH 8	ACD (1)
SLB.MOL	Molar Solubility	>=0.1 - <1 mol/L	pH 10	ACD (1)

(1) Calculated using Advanced Chemistry Development (ACD) Software Solaris V4.67 ((C) 1994-2001 ACD)

1511 REFERENCES IN FILE CA (1967 TO DATE)
47 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1511 REFERENCES IN FILE CAPLUS (1967 TO DATE)
44 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	9.53	9.68

FILE 'CAPLUS' ENTERED AT 16:40:19 ON 29 NOV 2001
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1947 - 29 Nov 2001 VOL 135 ISS 23
FILE LAST UPDATED: 28 Nov 2001 (20011128/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

CAplus now provides online access to patents and literature covered in CA from 1947 to the present. On April 22, 2001, bibliographic information and abstracts were added for over 2.2 million references published in CA from 1947 to 1966.

The CA Lexicon is now available in the Controlled Term (/CT) field. Enter HELP LEXICON for full details.


```
=> s l1 and photosensitive
          1512 L1
         44387 PHOTOSENSITIVE
            13 PHOTOSENSITIVES
         44391 PHOTOSENSITIVE
                  (PHOTOSENSITIVE OR PHOTOSENSITIVES)
L2          34 L1 AND PHOTOSENSITIVE

=> d l2 1-34 all

L2   ANSWER 1 OF 34  CAPLUS  COPYRIGHT 2001 ACS
AN   2001:617230  CAPLUS
DN   135:187769
TI   Photothermographic material containing compound with controlled melting
     point
IN   Hirabayashi, Kazuhiko
PA   Konica Co., Japan
SO   Jpn. Kokai Tokkyo Koho, 78 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
IC   ICM  G03C001-498
     ICS  G03C001-498; G03C001-76
CC   74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
FAN.CNT 1
     PATENT NO.         KIND  DATE          APPLICATION NO.  DATE
     ---------------    ----  --------      ---------------  --------
PI   JP 2001228578      A2    20010824      JP 2000-38270    20000216
OS   MARPAT 135:187769
GI
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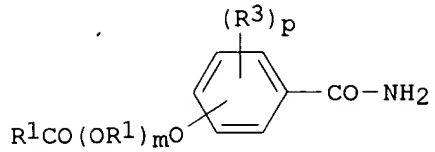
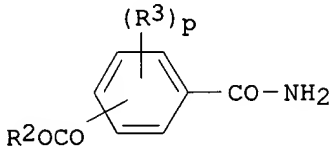
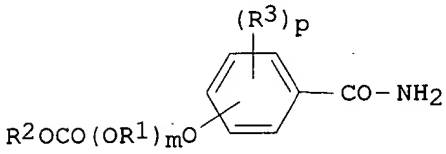


I



II



III

AB The material has a photothermog. layer on a support, contg. an org. Ag particle, a **photosensitive** Ag halide grain, a reducing agent, a contrast controlling agent, and (A) the hot melt compd. (Cmd) with 90-260.degree. m.p. or (B) .gtoreq.1 (Cme) of HOCH2(CHR1R2)nCH2OH (R1, R2 = H, hydroxymethyl, hydroxyethyl; n = 0-7), A1A2NSO2NA3A4 (A1-4 = H, alkyl, substituted alkyl, cycloalkyl, aralkyl, aryl, substituted aryl, heterocycle; A1 and A2, or A3 and A4 may form a ring), I, II, and III [R1 = alkylene; R2 = each (substituted) alkyl, alkenyl, aryl; R3 = each (substituted) alkyl, alkoxy, aryl, aryloxy, halo, carbamoyl; p = 0-4; m = 0-2], where wt. ratio Cmd/Ag or Cme/Ag is 0.002-0.50. It showed improved super rapid processing, processing stability, raw-stock stability, and exposure latitude.

ST photothermog material additive melting point; benzamide sulfonamide photothermog material; polyhydroxy compd photothermog material

IT Photothermographic copying
(photothermog. material contg. compd. with controlled m.p.)

IT **70-55-3** 1138-58-5 6339-87-3, 2-Thiophenesulfonamide 16993-47-8, Benzeneethanesulfonamide 55673-71-7, 2-Furansulfonamide 63636-89-5, 2-Pyridinesulfonamide
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photothermog. material contg. compd. with controlled m.p.)

IT 115-77-5, Pentaerythritol, uses 5615-99-6 30635-52-0, 1,2,3,4,5,6,7-Heptaneheptol 63976-32-9, Octitol 78950-33-1 98574-92-6, Nonitol 121262-96-2 124327-26-0 124327-27-1 124327-36-2 355393-32-7 355393-33-8
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photothermog. material contg. polyol, sulfonamide, or benzamide compd.)

L2 ANSWER 2 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 2001:566676 CAPLUS
DN 135:129582

TI Negative-working **photosensitive** resin composition and **photosensitive** resin plate using the same

IN Takanashi, Hiroshi; Kudo, Tomoya

PA Japan

SO U.S. Pat. Appl. Publ., 7 pp., Cont.-in-part of U.S. Ser. No. 262,077.
CODEN: USXXCO

DT Patent

LA English

IC ICM G03F007-029
ICS G03F007-30

NCL 430281100

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2001010893	A1	20010802	US 2000-739750	20001220
	JP 11249291	A2	19990917	JP 1998-71513	19980305
PRAI	JP 1998-71513	A	19980305		
	US 1999-262077	A2	19990304		

AB The invention relates to a neg.-working **photosensitive** resin compn. which has excellent reproducibility of highlighted areas and independent fine lines, has good depth of non-printing areas and has good resolving properties and to a **photosensitive** resin plate using the resin compn. The resin compn. comprises (a) a film-forming polymer, (b) an unsatd. compd. having a radical polymerizable ethylenic double bond, (c) a photopolymn. initiator, and (d) a thermal polymn. inhibitor, wherein the resin compn. further contains (e) either o-benzenesulfonamide or p-benzenesulfonamide in a range of 3.5 wt. % or less based on the wt. of the **photosensitive** resin compn. A **photosensitive** resin plate using the **photosensitive** resin compn. is also disclosed. By this invention, a neg.-working **photosensitive** resin compn. particularly excellent in the reproducibility of the highlight areas and the independent fine lines and having the deep nonprinting depth and good resolving properties, and a **photosensitive** resin plate using the resin compn. are provided.

ST neg working **photosensitive** resin plate benzenesulfonamide polymer film

IT Polymerization
(photopolymn.; water-sol. neg.-working **photosensitive** resin compn. for **photosensitive** resin plate)

IT Polymerization
(radical; water-sol. neg.-working **photosensitive** resin compn. for **photosensitive** resin plate)

IT Lithographic plates
Photoresists
(water-sol. neg.-working **photosensitive** resin compn. for **photosensitive** resin plate)

IT 351186-53-3, Vinyl alcohol-ethylene glycol diacrylate copolymer
RL: NUU (Nonbiological use, unclassified); POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(water-sol. neg.-working **photosensitive** resin compn. for **photosensitive** resin plate)

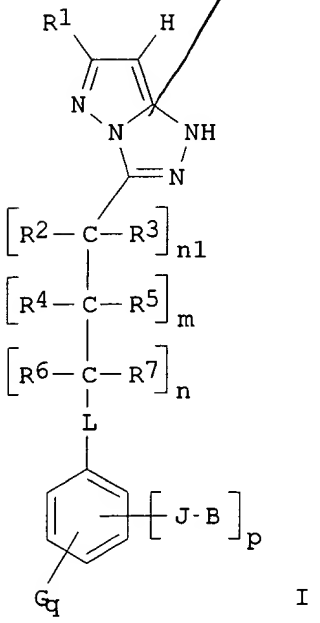
IT **70-55-3**, p-Toluenesulfonamide 88-19-7, o-Toluenesulfonamide
RL: MOA (Modifier or additive use); NUU (Nonbiological use, unclassified);
USES (Uses)
(water-sol. neg.-working **photosensitive** resin compn. for

photosensitive resin plate contg.)

L2 ANSWER 3 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 2000:624654 CAPLUS
DN 133:230313
TI Silver halide color **photosensitive** material and color image forming method using the same
IN Mikoshiba, Hisashi; Shimura, Yoshio; Matsuda, Naoto
PA Fuji Photo Film Co., Ltd., Japan
SO Eur. Pat. Appl., 127 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G03C007-38
ICS G03C007-44; C07D487-04
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1033621	A1	20000906	EP 2000-102281	20000217
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001033921	A2	20010209	JP 2000-15982	20000125
PRAI	JP 1999-40268	A	19990218		
	JP 1999-136249	A	19990517		

OS MARPAT 133:230313
GI



I

AB A silver halide color **photosensitive** material comprising each at least one blue-, green-, and at least one red-sensitive emulsion layer on

a support, wherein the material contains a magenta coupler I (R1 = tertiary alkyl group; n1, m, and n = 0 or 1; R2, R3, R4, R5, R6, and R7 = H, halogen atom, alkyl group, or aryl group; L = divalent group selected from the group consisting of -NR8SO2-, -SO2NR8-, -SO2NR8CO-, -NR8COO-, -NR8CONR9-, and -COO-, wherein the right side of each formula bonds to the Ph group in I, R8, R9 = H, alkyl group, or aryl group; J = divalent group selected from the group consisting of -CO-, -COO-, -O-, -S-, -CONR10-, -NR10CO-, -NR10COO-, -NR10NR11-, -SO2-, -SO2NR10-, and -CONR10SO2-, wherein the left side of each formula bonds to the Ph group in I, R10, R11 = H, alkyl group, or aryl group; B = alkyl group having the total no. of carbon atoms of 1 to 70 or aryl group having the total no. of carbon atoms of 6 to 70; p = 1-5; a plurality of -J-B's being able to be the same or different when p.gtoreq.2; G = substituent; q = 0-4; a plurality of G's being able to be the same or different when q.gtoreq.2).

ST magenta photog coupler; silver halide **photosensitive** material

IT Magenta couplers
(silver halide color **photosensitive** material and color image forming met)

IT 291543-60-7P 291543-61-8P 291543-62-9P 291543-64-1P 291543-66-3P 291543-80-1P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(magenta coupler in silver halide color **photosensitive** material)

IT 291543-67-4 291543-68-5 291543-69-6 291543-70-9 291543-71-0 291543-72-1 291543-73-2 291543-74-3 291543-75-4 291543-76-5 291543-77-6 291543-78-7 291543-79-8 291545-03-4
RL: TEM (Technical or engineered material use); USES (Uses)
(magenta coupler in silver halide color **photosensitive** material)

IT 56-41-7, L-Alanine, reactions **70-55-3** 85-44-9, 1,3-Isobenzofurandione 111-42-2, reactions 140-66-9 540-51-2 2231-57-4, Carbonothioic dihydrazide 3144-09-0, Methanesulfonamide 6974-87-4 7719-09-7, Thionyl chloride 7790-94-5, Chlorosulfonic acid 10025-87-3, Phosphoric trichloride 13547-70-1 63134-33-8
RL: RCT (Reactant)
(silver halide color **photosensitive** material and color image forming method using the same)

IT 5364-22-7P 19506-87-7P 112001-82-8P 137786-05-1P 291543-48-1P 291543-49-2P 291543-50-5P 291543-51-6P 291543-52-7P 291543-53-8P 291543-54-9P 291543-55-0P 291543-56-1P 291543-57-2P 291543-58-3P 291543-59-4P 291543-65-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(silver halide color **photosensitive** material and color image forming method using the same)

IT 291543-63-0P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(silver halide color **photosensitive** material and color image forming method using the same)

RE.CNT 4

RE

(1) Anon; PATENT ABSTRACTS OF JAPAN 1999, V1999(09)
(2) Fuji Photo Film Co Ltd; JP 11119393 A 1999 CAPLUS
(3) Romanet; US 5688964 A 1997 CAPLUS

(4) Sakanoue; US 5272049 A 1993 CAPLUS

L2 ANSWER 4 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1999:752371 CAPLUS
DN 132:7564
TI **Photosensitive** resin composition useful as etching resist or plating resist
IN Murakami, Shigeru; Takasaka, Eiji; Fujimoto, Naohiko
PA Nippon Synthetic Chemical Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-033
ICS C09D005-00; G03F007-004; G03F007-027; G03F007-028; G03F007-031; H01L021-027; C09D004-06
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11327138	A2	19991126	JP 1998-142318	19980508

PI JP 11327138 A2 19991126 JP 1998-142318 19980508

AB The title resin compn. contains (a) a base polymer including 2 types of copolymers with wt. av. mol. wt. of 50,000-70,000 and 70,000-100,000 (not including 70,000), .gtoreq.1 of which has an acid value of .gtoreq.130 mg KOH/g, (b) an ethylenic unsatd. compd., (c) a photopolymn. initiator including lophine dimer, (d) a plasticizer, and (e) a dye. The compn. shows improved resist removal, provides a high resoln. pattern showing good adhesion to substrate, and is useful for etching and solder resist.

ST photoresist base polymer acid value; photopolymn catalyst lophine dimer acridine resist; plasticizer photoresist

IT Polymerization catalysts
(photopolymn.; photoresist compn. contg. lophine dimer and/or acridine deriv. as photopolymn. catalyst)

IT Photoresists
(photoresist compn. contg. acid value-controlled base polymer)

IT Plasticizers
(photoresist compn. contg. plasticizer)

IT 484-47-9D, Lophine, dimers 602-56-2, 9-Phenylacridine
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiator; photoresist compn. contg. lophine dimer and/or acridine deriv. as photopolymn. catalyst)

IT 29960-89-2P, Butyl methacrylate-methacrylic acid-methyl acrylate-methyl methacrylate copolymer
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photoresist compn. contg. acid value-controlled base polymer)

IT 38056-88-1, HOA MPE 41637-38-1, BPE 500
RL: TEM (Technical or engineered material use); USES (Uses)
(photoresist compn. contg. acid value-controlled base polymer)

IT 90-93-7, 4,4'-Bis(diethylamino)benzophenone
RL: CAT (Catalyst use); USES (Uses)
(photoresist compn. contg. lophine dimer and/or acridine deriv. as photopolymn. catalyst)

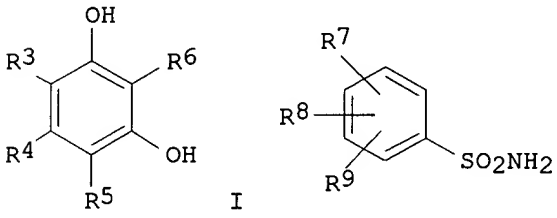
IT **70-55-3**, p-Toluenesulfonamide

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(plasticizer; photoresist compn. contg. acid value-controlled base polymer)

L2 ANSWER 5 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1998:493872 CAPLUS
DN 129:168051
TI Processing of silver halide **photosensitive** material
IN Kiyoyama, Hideo; Iwata, Tamotsu
PA Mitsubishi Paper Mills, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C005-305
ICS G03C005-29
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10198003	A2	19980731	JP 1997-2320	19970109

OS MARPAT 129:168051
GI



I II

AB The material is processed with a developing soln. contg. ascorbic acid or its deriv. as a developing agent and .gtoreq.1 compd. A(CH2)nCR1R2SO1M [A = OH or amino; R1 and R2 form a 5- or 6-membered ring along with the C atom to which they link or either one is H and the other H, C.ltoreq.10 alkyl, aryl, OH or CH[(CH2)nOH][SO1M]; l = 2 or 3; n = 0-8; M = H or cation]. The developing soln. may contain, in addn., .gtoreq.1 compd. selected from. I and II [R3-6 = H, OH, CO2X, SO3X (X = H or cation), halo, (substituted) C1-10 alkyl; R7-9 = H, OH, SO3X, (substituted) C1-10 alkyl]. The rapid drop in pH of the developing due to air oxidn. is prevented.
ST antioxidant photog developer; ascorbic acid deriv photog developer
IT Antioxidants
Photographic developers
(photog. developer contg. ascorbic acid deriv. and antioxidant)
IT **70-55-3** 108-46-3, 1,3-Benzenediol, uses 108-73-6, 1,3,5-Benzenetriol 149-91-7, uses 870-72-4
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(photog. developer contg. ascorbic acid deriv. and antioxidant)

IT 62624-30-0, Ascorbic acid
RL: TEM (Technical or engineered material use); USES (Uses)
(photog. developer contg. ascorbic acid deriv. and antioxidant)

L2 ANSWER 6 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1997:557772 CAPLUS
DN 127:255330
TI Positive image-forming composition containing acid generator and sulfonimide compound
IN Kawamura, Koichi; Uenishi, Kazuya
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-039
ICS C07C311-48; G03F007-004
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09211863	A2	19970815	JP 1996-17746	19960202
	US 5731123	A	19980324	US 1997-791901	19970131
PRAI	JP 1996-17746		19960202		

OS MARPAT 127:255330
AB The title compn. contains a compd. generating an acid by the action of light or heat and a sulfonimide compd. L1(SO2NR2SO2R1)n [n = 1-6; R1 = (substituted) arom. group, (substituted) alkyl; when n = 1, L1 = (substituted) arom. group or (substituted) alkyl, when n = 2-6, L1 = (substituted) polyvalent linking group composed of nonmetal atoms; R2 = (substituted) alkoxymethyl, (substituted) arylmethyl, (substituted) alicyclic alkyl]. The compn. provides high resoln. resist patterns showing little change with the elapse of time and shows high sensitivity toward rays in the region from UV to IR. Thus, an Al support was coated with a **photosensitive** layer contg. (p-MeC6H4SO2)2NCH2OCH2Ph, 4-p-tolylmercapto-2,5-diethoxybenzenediazonium hexafluorophosphate, and a binder resin to give a presensitized lithog. plate.
ST presensitized lithog plate sulfonimide compd; photoresist acid generator; sulfonimide compd photoresist pos working
IT Photoresists
(pos.-working; pos.-working **photosensitive** compn. contg. acid generator and sulfonimide compd.)
IT Lithographic plates
(presensitized; pos.-working **photosensitive** compn. contg. acid generator and sulfonimide compd.)
IT 437-13-8, Triphenylsulfonium tetrafluoroborate 10409-07-1 57835-99-1 57900-42-2, Triphenylsulfonium hexafluoroarsenate 58109-40-3, Diphenyliodonium hexafluorophosphate 69432-40-2 89453-71-4
RL: DEV (Device component use); USES (Uses)
(pos.-working **photosensitive** compn. contg. acid generator and sulfonimide compd.)
IT 195603-05-5 195603-06-6 195603-07-7 195603-08-8 195603-09-9 195603-10-2 195603-11-3 195603-12-4 195603-13-5 195603-14-6
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(pos.-working **photosensitive** compn. contg. acid generator and sulfonimide compd.)

IT 56079-40-4P 195603-04-4P
RL: DEV (Device component use); MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(pos.-working **photosensitive** compn. contg. acid generator and sulfonimide compd.)

IT **70-55-3**, p-Toluenesulfonamide 100-44-7, Benzyl chloride, reactions 824-94-2, p-Methoxybenzyl chloride
RL: RCT (Reactant)
(prepn. of sulfonimide compd.)

L2 ANSWER 7 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1997:7 CAPLUS
DN 126:39712
TI **Photosensitive** resin composition and **photosensitive** element using same
IN Ichikawa, Tatsuya; Chiba, Tatsuo
PA Hitachi Chemical Company, Ltd., Japan
SO Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G03F007-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 738927	A2	19961023	EP 1996-302638	19960416
	EP 738927	A3	19970820		
	EP 738927	B1	20000816		
	R: BE, DE, FR, GB, IT, NL				
	JP 08286372	A2	19961101	JP 1995-93536	19950419
	JP 3199600	B2	20010820		
	JP 08297368	A2	19961112	JP 1995-104480	19950427
	JP 09015856	A2	19970117	JP 1995-162445	19950628
	JP 3199607	B2	20010820		
	TW 424172	B	20010301	TW 1996-85103882	19960402
	US 5744282	A	19980428	US 1996-630479	19960410
	EP 999473	A1	20000510	EP 2000-100754	19960416
	R: BE, DE, FR, GB, IT, NL				
	US 6060216	A	20000509	US 1998-6661	19980113
	US 6228560	B1	20010508	US 1999-461387	19991215
PRAI	JP 1995-93536	A	19950419		
	JP 1995-104480	A	19950427		
	JP 1995-162445	A	19950628		
	US 1996-630479	A1	19960410		
	EP 1996-302638	A3	19960416		
	US 1998-6661	A1	19980113		

AB A **photosensitive** resin compn. comprises (A) a binder polymer having carboxyl groups, (B) a photopolymerizable an isocyanuric acid deriv. having at least one polymerizable ethylenically unsatd. group in the mol., and (C) a photoinitiator can provide a film of high mech. strength, chem. resistance, and flexibility and is used for producing a **photosensitive** element for fabrication of elec. circuits.

ST **photosensitive** resin compn photoresist elec circuit

IT Photoresists
(contg. photopolymerizable isocyanuric acid derivs.)

IT Photoimaging materials

(contg. photopolymerizable isocyanuric acid derivs. for integrated circuit fabrication)

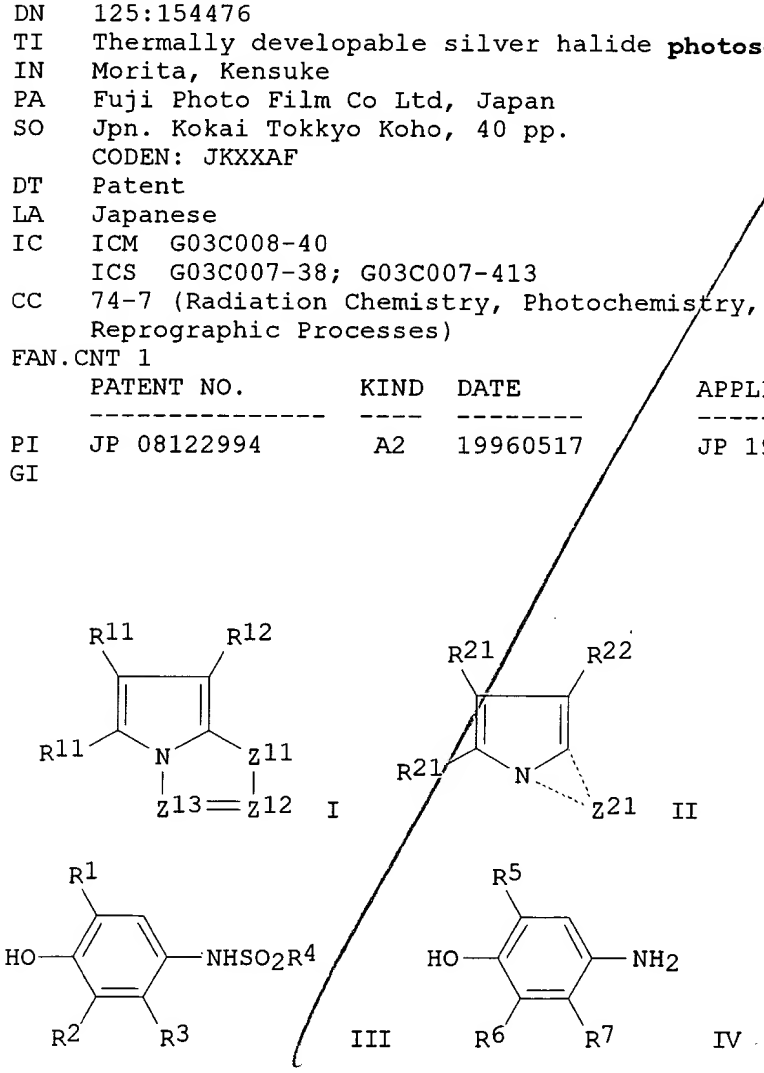
IT Integrated circuits
(photoimaging compns. contg. photopolymerizable isocyanuric acid derivs. for fabrication of)

IT **70-55-3**, p-Toluenesulfonamide 90-93-7, N,N,N',N'-Tetraethyl-4,4'-diaminobenzophenone 603-48-5, Leucocrystal violet 17025-47-7, Tribromomethylphenylsulfone 88684-44-0, Ethyl acrylate-ethyl methacrylate-methacrylic acid-methyl methacrylate copolymer 91528-47-1, Ethyl dimethylaminobenzoate 100752-97-4, Diethylthioxanthone 184534-80-3 184534-81-4
RL: TEM (Technical or engineered material use); USES (Uses)
(**photosensitive** compns. for integrated circuit fabrication contg.)

L2 ANSWER 8 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1996:508726 CAPLUS
DN 125:154476
TI Thermally developable silver halide **photosensitive** material
IN Morita, Kensuke
PA Fuji Photo Film Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 40 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C008-40
ICS G03C007-38; G03C007-413
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 08122994	A2	19960517	JP 1994-279716	19941020

GI



AB The material contains a coupler I [R11, R12 = electron-drawing group with Hammett's .sigma.p const. .gtoreq.0.2 and total .gtoreq.0.65; Z11 = NH,

CH(R13); Z12 = CR14, N; Z13 = CR15, N; R13 = electron-drawing group with Hammett's .sigma.p const. .gtoreq.0.2; R14, R15 = H, substituent; X11 = leaving group] and/or II (R21 = H, substituent; R22 = substituent; Z21 = nonmetallic group forming 5-6-membered heterocycle; X21 = leaving group) and a developing agent III (R1, R2, R3 = H, halo, alkyl, aryl, alkoxy, aryloxy, carbamoyl, sulfamoyl, alkyloxycarbonyl, aryloxycarbonyl, acylamino, sulfonamido, formyl, etc.; R4 = alkyl, aryl, heterocyclic, alkoxy, amino) and/or IV (R5, R6, R7 = R1, R2, R3). The material shows high-d. color image.

ST pyrazolotriazole cyan coupler silver photothermog; phenol developer silver photothermog; thermal development silver photog

IT Photographic developers
(phenol compds.; thermally developable silver halide **photosensitive** material)

IT Photothermographic copying
(thermally developable silver halide **photosensitive** material)

IT Photographic couplers
(cyan, pyrazolotriazoles; thermally developable silver halide **photosensitive** material)

IT 151019-65-7 180094-02-4
RL: DEV (Device component use); USES (Uses)
(cyan coupler; thermally developable silver halide **photosensitive** material)

IT 180094-01-3P 180094-03-5P
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(cyan coupler; thermally developable silver halide **photosensitive** material)

IT 154021-52-0
RL: DEV (Device component use); RCT (Reactant); USES (Uses)
(cyan coupler; thermally developable silver halide **photosensitive** material)

IT 5930-28-9 51767-45-4 180094-05-7
RL: DEV (Device component use); USES (Uses)
(developer; thermally developable silver halide **photosensitive** material)

IT 180094-04-6P
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(developer; thermally developable silver halide **photosensitive** material)

IT 53572-73-9P 180094-06-8P
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation)
(phenol compd. developer prepn. for thermally developable silver halide **photosensitive** material)

IT 96-97-9, 5-Nitrosalicylic acid 29710-58-5, 3,5-Dimethoxycarbonylbenzenesulfonyl chloride 180094-07-9
RL: RCT (Reactant)
(phenol compd. developer prepn. for thermally developable silver halide **photosensitive** material)

IT 50-00-0, Formaldehyde, reactions **70-55-3**, p-Toluenesulfonamide
RL: RCT (Reactant)
(pyrazolotriazole photog. coupler prepn. for thermally developable silver halide **photosensitive** material)

L2 ANSWER 9 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1995:531974 CAPLUS
DN 122:267436
TI Electric circuit structures having **photosensitive** heat-resistant polyimide compositions for surface protection, .alpha.-ray shielding, or insulation and manufacture thereof
IN Yoshikawa, Haruhiko; Kataoka, Fumio; Shoji, Fusaji; Obara, Isao; Tanaka, Jun
PA Hitachi Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 36 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM H01L021-90
ICS H01L021-312
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 74, 76
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 06181264	A2	19940628	JP 1992-332714	19921214

AB The title cured compns. are formed from 100 parts polymers of main repeating unit -COR1(CO2H)2CONHR2NH- (R1 = C.gtoreq.4 tetravalent org. group; R2 = arom ring or Si-contg. divalent org. group), 0.1-100 parts arom. diazide photocrosslinking agent, 1-400 parts unsatd. amine, and 0.5-50 parts sulfonamide R3SO2NHR4, R3SO2NR42, or R3SO2NHR5NHSO2R4 (R3 = arom. or alkyl group; R4 = H, arom. group, alkyl group; R5 = alkylene, arom. ring-contg. divalent org. group), and optionally photosensitizer. A polyamic acid prepd. from 4,4'-diaminodiphenyl ether and 3,3',4,4'-biphenyltetracarboxylic acid dianhydride in N-methyl-2-pyrrolidone was treated with 2,6-bis(p-aziobenzal)-4-carboxycyclohexanone, 3-(dimethylamino)propyl methacrylate, and p-toluenesulfonylanilide, spin-coated on a Si wafer, exposed, developed with aq. N-methyl-2-pyrrolidone, rinsed with iso-PrOH, and baked at 400.degree. for 30 min to give a polyimide film with wt. loss initiation temp. 450.degree. and elongation 12%.

ST polyimide elec circuit structure; elec insulator polyimide heat resistant; photoresist polyimide heat resistant; azid photosensitizer polyimide photoresist

IT Coating materials
Electric insulators and Dielectrics
(elec. circuit structures having **photosensitive** heat-resistant polyimide compns. for surface protection, .alpha.-ray shielding, or insulation and manuf. thereof)

IT Azides
RL: CAT (Catalyst use); USES (Uses)
(elec. circuit structures having **photosensitive** heat-resistant polyimide compns. for surface protection, .alpha.-ray shielding, or insulation and manuf. thereof)

IT Polyamic acids
Polyimides, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(elec. circuit structures having **photosensitive** heat-resistant polyimide compns. for surface protection, .alpha.-ray shielding, or insulation and manuf. thereof)

IT Resists
(photo-, elec. circuit structures having **photosensitive** heat-resistant polyimide compns. for surface protection, .alpha.-ray shielding, or insulation and manuf. thereof)

IT Crosslinking catalysts
(photochem., elec. circuit structures having **photosensitive** heat-resistant polyimide compns. for surface protection, .alpha.-ray shielding, or insulation and manuf. thereof)

IT Siloxanes and Silicones, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyimide-, elec. circuit structures having **photosensitive** heat-resistant polyimide compns. for surface protection, .alpha.-ray shielding, or insulation and manuf. thereof)

IT Polyimides, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(siloxane-, elec. circuit structures having **photosensitive** heat-resistant polyimide compns. for surface protection, .alpha.-ray shielding, or insulation and manuf. thereof)

IT 105-16-8 2867-47-2 10369-88-7, 2-(Diethylamino)ethyl cinnamate 14128-15-5, 4,4'-Diazidochalcone 18526-07-3, 3-(Dimethylamino)propyl acrylate 20602-77-1 20602-93-1 42759-78-4, 2,6-Bis(p-azidobenzal)-4-hydroxycyclohexanone 60283-41-2 85179-70-0 85179-71-1, 2,6-Bis(p-azidobenzal)-4-carboxycyclohexanone 90861-20-4 93664-30-3 100453-32-5 121040-35-5 162843-51-8 162843-52-9 162843-53-0 162843-54-1 162843-55-2 162843-56-3 162843-57-4 162843-61-0 162843-62-1 162843-63-2 162843-64-3 162843-65-4 162878-85-5
RL: CAT (Catalyst use); USES (Uses)
(elec. circuit structures having **photosensitive** heat-resistant polyimide compns. for surface protection, .alpha.-ray shielding, or insulation and manuf. thereof)

IT 25085-92-1P 26298-81-7P, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-diaminodiphenyl ether copolymer 26615-45-2P, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-diaminodiphenyl ether copolymer, sru 64427-99-2P 72344-77-5P 72356-21-9P 84329-59-9P 91415-39-3P 96926-37-3P 96926-75-9P 98847-60-0P 98866-21-8P 111898-27-2P 113735-83-4P 113742-50-0P 113742-51-1P 117247-38-8P 121509-62-4P 142007-33-8P 162843-46-1P 162843-47-2P 162843-48-3P 162843-49-4P 162843-50-7P 162843-60-9P 162994-32-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(elec. circuit structures having **photosensitive** heat-resistant polyimide compns. for surface protection, .alpha.-ray shielding, or insulation and manuf. thereof)

IT 68-34-8, p-Toluenesulfonylanilide **70-55-3**, p-Toluenesulfonamide 80-39-7, N-Ethyl-p-toluenesulfonamide 90-93-7, 4,4'-Bis(diethylamino)benzophenone 98-10-2, Benzenesulfonamide 602-87-9, 5-Nitroacenaphthene 649-15-0, N,N-Diethyl-p-toluenesulfonamide 723-42-2, N,N-Dipropyl-p-toluenesulfonamide 1150-26-1 1907-65-9, N-Butyl-p-toluenesulfonamide 41595-29-3 53364-99-1 56934-07-7 63226-13-1, 3,3'-Carbonylbis(7-diethylaminocoumarin) 71868-10-5, 2-Methyl-1-[4-(methylthio)phenyl]-2-morpholinopropan-1-one 74043-79-1 115166-68-2 117964-11-1 162843-45-0 162843-58-5 162843-59-6

RL: MOA (Modifier or additive use); USES (Uses)
(elec. circuit structures having **photosensitive** heat-resistant polyimide compns. for surface protection, .alpha.-ray shielding, or insulation and manuf. thereof)

IT 12587-46-1, Alpha ray
RL: MSC (Miscellaneous)
(elec. circuit structures having **photosensitive** heat-resistant polyimide compns. for surface protection, .alpha.-ray shielding, or insulation and manuf. thereof)

L2 ANSWER 10 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1995:325754 CAPLUS
DN 122:174577
TI **Photosensitive** colored sheet with transparent heat-adhesion layer
IN Ueda, Tsunehisa; Danjo, Shigeru; Yamakawa, Fujiaki
PA Sekisui Chemical Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41M005-40
ICS G03F003-10; G03F007-004; G03F007-027; G03F007-028; G03F007-11
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06278377	A2	19941004	JP 1993-69723	19930329

AB The colored sheets comprise supports laminated with heat-adhesion layers of resin compns. contg. 100 parts alc.-sol. polyamide and 1-30 parts sulfonamide and **photosensitive** colored layers. The sheets show good adhesion on thermal transfer and prevent color fog formation. Thus, a PET film was coated with a 90:10 wt. ratio mixt. of CM-8000 (alc.-sol. polyamide) and N-ethyl-p-toluenesulfonamide and with a compn. contg. Me methacrylate-Bu methacrylate-2-ethylhexyl methacrylate-methacrylic acid copolymer, trimethylolpropane triacrylate, a photoinitiator, and a pigment to give a **photosensitive** colored sheet.

ST thermal transfer printing **photosensitive** polyamide; adhesion layer sulfonamide thermal transfer; color **photosensitive** thermal transfer polyamide

IT Adhesives
(**photosensitive** colored sheet with transparent heat-adhesion layer contg. alc.-sol. polyamides and sulfonamides)

IT Polyamides, uses
RL: DEV (Device component use); POF (Polymer in formulation); USES (Uses)
(**photosensitive** colored sheet with transparent heat-adhesion layer contg. alc.-sol. polyamides and sulfonamides)

IT Printing, nonimpact
(thermal-transfer, **photosensitive** colored sheet with transparent heat-adhesion layer contg. alc.-sol. polyamides and sulfonamides)

IT 25191-90-6, CM 8000 50586-48-6, CM 4000
RL: DEV (Device component use); USES (Uses)
(**photosensitive** colored sheet with transparent heat-adhesion layer contg. alc.-sol. polyamides and sulfonamides)

IT **70-55-3**, p-Toluenesulfonamide 80-39-7, N-Ethyl-p-

toluenesulfonamide
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(**photosensitive** colored sheet with transparent heat-adhesion layer contg. alc.-sol. polyamides and sulfonamides)

L2 ANSWER 11 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1994:446612 CAPLUS
DN 121:46612
TI Negative-working **photosensitive** heat-resistant polymer composition
IN Kataoka, Fumio; Yoshikawa, Haruhiko; Shoji, Fusaji; Nishikame, Masashi; Obara, Isao
PA Hitachi, Ltd., Japan; Hitachi Chemical Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08L077-06
ICS C08K005-17; C08K005-28; C08K005-43
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 04366169	A2	19921218	JP 1991-143010	19910614

AB The title polymer compn. comprises (1) a polymer -[CO-R1(CO2H)2-CONH-R2-NH]- (R1 = C.gtoreq.4 tetravalent org. group; R2 = arom. ring, Si-contg. bivalent org. group) (0.5-50 wt. parts), (2) an arom. bisazide photo-crosslinking agent (0.1-100 wt. parts), (3) an unsatd. amine (1 - 400 wt. parts), (4) a sulfonamide (0.5 - 50 wt. parts) selected from R3SO2NHR4, R3SO2NR42, R3SO2NHR5NHSO2R4 (R3 = arom. group, alkyl; R4 = H, arom. group, alkyl; R5 = alkylene, bivalent org. group contg. arom. rings). This compn. shows high sensitivity, and is developable at a higher developing speed.
ST neg working polymer compn photoresist; polyamic acid polyimide photoresist compn
IT Polyamic acids
Polyimides, uses
RL: USES (Uses)
(neg.-working photoresist compn. from)
IT Resists
(photo-, neg.-working, polyimide type, with high sensitivity and developing speed)
IT 68-34-8, p-Toluenesulfonylanilide **70-55-3**, p-Toluenesulfonamide 80-39-7, p-Toluenesulfonyl-N-ethylamide 98-10-2, Benzenesulfonamide 649-15-0 4367-02-6 58821-26-4 74043-79-1 115166-68-2 117964-11-1
RL: USES (Uses)
(neg.-working photoresist compn. from)
IT 26298-81-7P, 4,4'-Diaminodiphenyl ether-3,3',4,4'-biphenyltetracarboxylic dianhydride copolymer 26615-45-2P 56091-26-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and use of, neg.-working photoresist compn. from)

L2 ANSWER 12 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1994:19271 CAPLUS

DN 120:19271
TI **Photosensitive**, heat-resistant polymer compositions
IN Yoshikawa, Haruhiko; Kataoka, Fumio; Shoji, Fusaji; Nishikame, Masashi; Obara, Isao
PA Hitachi Ltd, Japan; Hitachi Chemical Co Ltd
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-038
ICS G03F007-004; G03F007-075; H01L021-027; H01L021-312; H05K003-28
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 05080514	A2	19930402	JP 1991-241077	19910920

AB The title compns. comprise (1) polymer having a repeating unit COZ1(COOH)2CONHZ2NH (Z1 = C.gtoreq.4 org. group having 4 valences; Z2 = divalent org. group having an arom. ring or Si) 100, (2) amine compd. having an unsatd. bond 1-400, and (3) sulfonamide compd. selected from R1SO2NHR2, R1SO2N(R2)2, and R1SO2NHZ3NHSO2R2 (R1 = arom. group, alkyl; R2 = H, arom. group, alkyl; Z3 = alkylene, divalent org. group having an arom. ring) 0.5-50 wt. parts. The compns. show high developing rate, good mech. strength, and improved workability in forming insulating and protective coatings for semiconductor elements and electronics.
ST photoresist heat resistant; polyamide sulfonamide unsatd amine photoresist
IT Polyamides, uses
RL: USES (Uses)
(neg.-working photoresists from)
IT Resists
(photo-, neg.-working, contg. polyamides, unsatd. amines, and sulfonamides)
IT 68-34-8, p-Toluenesulfonylanilide **70-55-3**, p-Toluenesulfonamide 80-39-7, p-Toluenesulfonyl-N-ethylamide 98-10-2, Benzenesulfonamide 599-86-0 649-15-0 1129-26-6, p-Methoxybenzenesulfonamide 1899-94-1, m-Toluenesulfonamide 1907-65-9 69728-92-3 74043-79-1 115166-68-2 117964-11-1 151619-27-1
RL: USES (Uses)
(neg.-working photoresist contg., for rapid developability)
IT 105-16-8, 2-(N,N-Diethylamino)ethyl methacrylate 2867-47-2, 2-(N,N-Dimethylamino)ethyl methacrylate 20602-77-1, 3-(N,N-Dimethylamino)propyl methacrylate 25085-92-1 26298-81-7, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-diaminodiphenyl ether copolymer 26615-45-2, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-diaminodiphenyl ether copolymer, sru 60283-41-2 84329-58-8 84329-59-9 117247-38-8
RL: USES (Uses)
(neg.-working photoresist from)

L2 ANSWER 13 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1992:521558 CAPLUS
DN 117:121558
TI acidic additive for positive-working **photosensitive** material
IN Blanchet-Fincher, Graciela Beatriz; Chang, Catherine Teh Lin; Kempf,

Richard Joseph
PA du Pont de Nemours, E. I., and Co., USA
SO Ger. Offen., 26 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM G03G005-04
ICS G03G005-05; G03G005-09; G03G005-147; G03G015-01; G03G015-04; G03G015-10; G03G015-08; G03G015-16
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4134987	A1	19920430	DE 1991-4134987	19911023
	GB 2250352	A1	19920603	GB 1991-22554	19911024
	JP 04264449	A2	19920921	JP 1991-279082	19911025
PRAI	US 1990-603940		19901026		

OS MARPAT 117:121558
AB The title material comprises a conductive substrate coated with a **photosensitive** layer contg.: (a) .gtoreq.1 org. polymer binder; (b) a hexaarylbiimidazole photooxidn. material; (c) a leuco dye; (d) a nonionic halogenated compd.; (e) .gtoreq.1 plasticizer; and (f) .gtoreq.1 additive from (1) RNHR1 [R = R2SO2, R2CO, R2SO2NHCO, R3PO; R1 = H, alkyl, aryl, R4CO, halogen, a heterocyclic group; R2-R4 = alkyl, aryl, acyl, halogen, a heterocyclic group]; (2) a phosphonic acid deriv. R5PO(OH)2 [R5 = R1 except acyl]; (3) a carboxylic acid, e.g., acetic acid; (4) a sulfonic acid R5SO3H; (5) an inorg. acid; and (6) a Lewis acid. The title material provides high resoln.
ST printing plate **photosensitive** compn; electrophotog printing plate acid additive
IT Photoimaging compositions and processes
(acid additives for)
IT Electrophotographic photoconductors and photoreceptors
(**photosensitive** compns. for, acid additives for)
IT Printing plates
(prodn. of, **photosensitive** compns. contg. acid additives for)
IT 65-85-0, Benzoic acid, uses **70-55-3**, p-Toluene sulfonamide 77-92-9, Citric acid, uses 88-19-7, o-Toluene sulfonamide 88-99-3, Phthalic acid, uses 98-10-2, Benzenesulfonamide 100-93-6 104-15-4, p-Toluene sulfonic acid, uses 110-16-7, Maleic acid, uses 118-91-2, 2-Chlorobenzoic acid 120-89-8, Parabanic acid 144-62-7, Oxalic acid, uses 335-67-1, Perfluorooctanoic acid 482-05-3, Diphenic acid 625-77-4, Diacetamide 1571-33-1, Phenyl phosphonic acid 7446-70-0, Aluminum chloride, uses 7637-07-2, Boron fluoride, uses 7646-78-8, Tin tetrachloride, uses 7646-85-7, Zinc chloride, uses 7664-38-2, Phosphoric acid, uses 7727-15-3, Aluminum bromide 11130-18-0, Titanium chloride 25155-19-5, Naphthalenesulfonic acid 51766-21-3
RL: USES (Uses)
(**photosensitive** compns. contg.)

L2 ANSWER 14 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1991:72372 CAPLUS
DN 114:72372

TI Multicolor recording, material with light- and heat-sensitive color-forming layer

IN Saeki, Keiso; Shinozaki, Fumiaki; Fujita, Yutaka

PA Fuji Photo Film Co., Ltd., Japan

SO Ger. Offen., 10 pp.
CODEN: GWXXBX

DT Patent

LA German

IC ICM G03C001-72
ICS G03C007-00; B41M005-136; B41M005-165

ICA B01J013-02; C09B007-00; C09B011-00; C09B015-00; C09B019-00; C09B021-00; C09B001-16; C09D005-26

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3938978	A1	19900531	DE 1989-3938978	19891124
	JP 02143252	A2	19900601	JP 1988-297354	19881125
	JP 08032484	B4	19960329		
	US 4985331	A	19910115	US 1989-441664	19891127
PRAI	JP 1988-297354		19881125		

AB A 2-color recording material is described which consists of a support carrying a light- and heat-sensitive color-forming layer contg. microcapsules contg. a leuco dye and photooxidizing agent, and a reducing agent; and a heat-sensitive color-forming layer with a color-forming temp. different from the glass transition temp. of the microcapsule walls and contg. an electron-donating leuco dye giving a color tone different from that of the above-mentioned layer and an electron acceptor compd. The material has excellent storage stability and color d. A multicolor recording material is also described.

ST color photothermog material **photosensitive** microcapsule; heat sensitive layer color photothermog

IT Photothermographic copying
(color, materials for, contg. heat-sensitive color-forming layer and **photosensitive** microcapsules)

IT 71281-78-2, Phenidone A
RL: USES (Uses)
(color photothermog. copying material with **photosensitive** microcapsules and layer contg.)

IT 117580-89-9
RL: USES (Uses)
(color photothermog. copying materials contg. **photosensitive** microcapsules amd heat-sensitive layer contg.)

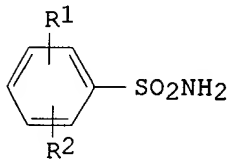
IT 80-05-7, uses and miscellaneous
RL: USES (Uses)
(color photothermog. copying materials contg. **photosensitive** microcapsules and heat-sensitive layer contg.)

IT **70-55-3**, p-Toluenesulfonamide 903-19-5, 2,5-Di-tert-octylhydroquinone 1707-68-2 2440-22-4, 2-(5-Methyl-2-hydroxyphenyl)benzotriazole 3584-23-4 4482-70-6, Tris(4-diethylamino-o-tolyl)methane 17025-47-7, Tribromomethyl phenyl sulfone 131737-84-3
RL: USES (Uses)
(color photothermog. copying materials with **photosensitive** microcapsules contg.)

L2 ANSWER 15 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1990:506458 CAPLUS
DN 113:106458
TI **Photosensitive** vinyl polymer composition containing sulfonamide and polyether glycol and its laminated element
IN Tanaka, Yoji; Kamio, Kenji; Furubayashi, Hiromi; Masaoka, Kazutaka
PA Hitachi Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-085
ICS G03F007-004; G03F007-027; G03F007-029
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02084653	A2	19900326	JP 1988-236957	19880921

GI



I

AB The title compn. contg. 100 parts of a 40/60-80/20 mixt. of a polymer giving film properties and a vinyl compd., 0.5-10 parts of an arom. sulfonamide I (R1, R2 = H, C.ltoreq.4 alkyl, C.ltoreq.4 alkoxy, OH, NO2), 0.2-10 parts of a polyether glycol, 0.2-10 parts of an org. halogen-contg. compd., and 0.5-10 parts of a sensitizer or its system creating free radicals under active light irradn., is laminated with a support to give the title element. The resist compn. and the element, useful for manuf. of a printed circuit board, shows adhesion to the substrate and removability after curing. Thus, a compn. comprising Me methacrylate-methacrylic acid-2-ethylhexyl acrylate copolymer, methyl Cellosolve, tetraethylene glycol diacrylate, BPE 10, benzophenone, 4,4'-dimethylaminobenzophenone, leuco crystal violet, bis(tribromophenyl) sulfone, malachite green, p-toluenesulfonamide, and Voranol CP 1421 (ethylene oxide-propylene oxide copolymer) was applied onto a Lumirror support film, dried, and overcoated with a polyethylene film to give the title element. Then, the element was laminated with a Cu-clad substrate after removal of the overcoating film, neg. patternwise irradiated, and aq. Na2CO3-developed after removal of the support to give a resist, which was treated with aq. NaOH to show no residue on the Cu surface.

ST photoresist laminate adhesion metal substrate; vinyl polymer photoresist polyether glycol; printed circuit photoresist removability sulfonamide; copper clad substrate photoresist

IT Resists
(photo-, vinyl polymers contg. sulfonamide and polyether glycol as)

IT **70-55-3** 17831-71-9, Tetraethylene glycol diacrylate 25133-98-6 25190-06-1 41637-38-1 128744-19-4

RL: USES (Uses)
(photoresist contg., for printed elc. circuit fabrication)
IT 9003-11-6, Ethylene oxide-propylene oxide copolymer
RL: USES (Uses)
(photoresist contg., for printed elc. circuit fabrication, Voranol CP 1421)
IT 25038-59-9, Lumirror, uses and miscellaneous
RL: USES (Uses)
(support from, for vinyl polymer photoresist, for printed elec. circuit
fabrication)

L2 ANSWER 16 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1990:243124 CAPLUS
DN 112:243124
TI Thermal development-type copying material
IN Nakamura, Kotaro; Shimada, Koichi; Tanaka, Toshiharu
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C001-52
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01248147	A2	19891003	JP 1988-76865	19880330

AB In the title copying material, a thermally developable **photosensitive** layer contains microcapsules contg. a diazo deriv. and an org. sulfonamide deriv. Image formation comprises exposure, photofixing, and thermal developing steps.
ST diazo photothermog copying material
IT Photothermographic copying
(materials for, microcapsules contg. diazonium compd. and org. sulfonamide deriv. for)
IT **70-55-3** 98-64-6, p-Chlorobenzenesulfonamide 138-38-5, p-Ethylbenzenesulfonamide
RL: USES (Uses)
(photothermog. copying material with microcapsules contg. diazonium compd. and)
IT 68015-88-3
RL: USES (Uses)
(photothermog. copying material with microcapsules contg. org. sulfonamide deriv. and)

L2 ANSWER 17 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1990:45451 CAPLUS
DN 112:45451
TI Sulfonamide-phenolic resin negative resist for krypton fluoride (KrF) excimer laser lithography
AU Yamaoka, Tsuguo; Nishiki, Masashi; Jin, Shun Ji; Kitamura, Jun; Koseki, Kenichi
CS Fac. Eng., Chiba Univ., Chiba, 260, Japan
SO Jpn. J. Appl. Phys., Part 1 (1989), 28(10), 2126-9
CODEN: JAPNDE; ISSN: 0021-4922
DT Journal

LA English
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
AB Arom. sulfonamides are a novel category of **photosensitive** compds. for neg. resists. A **photosensitive** layer of a m-cresol novolak resin and an arom. sulfonamide such as p-(tolylsulfonyl) aniline, benzenesulfonyl aniline, p-toluenesulfonamide or 4,4'-methylene-di(p-tolylsulfonyl) aniline is deposited in an aq. base by exposing to a deep-UV KrF excimer laser. The neg. resists exhibit sensitivities (Dg0.5) from 25 to 80 mJ/cm2 depending on the structure of sulfonamide. By exposure with a KrF excimer laser stepper, 0.8 and 0.35 .mu.m line patterns were transferred. The mechanism of the photoinsolubilization is discussed.
ST sulfonamide phenolic resin neg resist submicron
IT Phenolic resins, uses and miscellaneous
RL: USES (Uses)
(novolak, cresol-based, submicron lithog. neg. photoresist system contg. sulfonamides)
IT Resists
(photo-, polymeric, contg. sulfonamide deriv. and phenolic resin for submicron lithog.)
IT 108-39-4D, Novolak resins
RL: USES (Uses)
(submicron lithog. neg. photoresist system contg. sulfonamides and)
IT 68-34-8 **70-55-3**, p-Toluenesulfonamide 1678-25-7 74043-79-1
RL: USES (Uses)
(submicron lithog. neg. photoresists system contg. cresol novolak resin and)

L2 ANSWER 18 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1989:467996 CAPLUS
DN 111:67996
TI Heat-developable pressure-transfer polymerizable **photosensitive** material
IN Takahashi, Ryuichi
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 25 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C001-00
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63243935	A2	19881011	JP 1987-77320	19870330
	US 4927731	A	19900522	US 1988-175456	19880330
PRAI	JP 1987-77320		19870330		
	JP 1987-87998		19870410		

AB In the title material having on a support a **photosensitive** layer contg. microcapsules contg. Ag halides, a reducing agent, a polymerizable compd., and in the outer shells a base or base precursor, the outer shells of the microcapsules contain a heat-meltable compd. having polar groups and a m.p. of 30-200.degree..

ST heat developing polymg **photosensitive** microcapsule; photothermog microcapsule heat melting compd

IT Photothermographic copying
(pressure-transfer polymerizable materials with base-contg. microcapsules contg. heat-meltable compds. for)

IT Photographic films
(heat-developable, pressure-transfer, polymerizable, with base-contg. microcapsules contg. heat-meltable compds.)

IT 50-70-4, Sorbitol, uses and miscellaneous 58-86-6, D-Xylose, uses and miscellaneous 60-35-5, Acetamide, uses and miscellaneous **70-55-3**, p-Toluenesulfonamide 96-31-1, 1,3-Dimethylurea 625-52-5, Ethylurea
RL: USES (Uses)
(heat-developable pressure-transfer polymerizable **photosensitive** microcapsules contg.)

L2 ANSWER 19 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1989:125273 CAPLUS
DN 110:125273
TI Heat-developable silver halide photographic material
IN Takahashi, Ryuichi
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 36 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C001-00
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63253934	A2	19881020	JP 1987-87998	19870410
	US 4927731	A	19900522	US 1988-175456	19880330
PRAI	JP 1987-77320		19870330		
	JP 1987-87998		19870410		

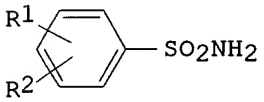
OS MARPAT 110:125273
AB In the title material having a **photosensitive** layer contg. Ag halides, a reducing agent, and microcapsules contg. a polymerizable compd., the microcapsules contain both in the internal and external areas a heat-fusible compd. having a polar group and m.p. 30-250.degree. such as Me2NSO2NH2.
ST heat developing silver photoresistive material; pressure transfer silver **photosensitive** material; polymg silver halide **photosensitive** material
IT Photographic films
(heat-developable, pressure-transfer, polymg., **photosensitive** materials contg. heat-fusible compds. for)
IT **70-55-3** 98-64-6 3119-02-6 3984-14-3 22771-98-8 109357-84-8
RL: USES (Uses)
(heat-developable pressure-transfer polymg. silver halide photog. material contg.)

L2 ANSWER 20 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1988:519698 CAPLUS
DN 109:119698
TI **Photosensitive** resist compositions

IN Kamio, Kenji; Masaoka, Kazutaka; Kakumaru, Hajime; Minami, Yoshitaka; Tanaka, Yoji
PA Hitachi Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C001-68
ICS G03C001-00
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 62286035	A2	19871211	JP 1986-128823	19860603

GI



I

JP02084653 is better (they're the same, actually)

AB The resist compns. contain (a) I (R1, R2 = H, C .ltoreq.4 alkyl, C.ltoreq.4 alkoxy, OH, NOi), (b) a polyether-polyol, (c) an ethylenic compd., (d) a film-forming polymer, and (e) a sensitizer or sensitizer system producing free radicals. The compn. provides good adhesion with substrates, and easy removal by peeling after photohardening. Thus, a soln. contg. acrylic copolymer, tetraethylene glycol diacrylate, and BPE-10 was mixed with other agents including equals amts. of p-toluenesulfonamide and Voranol CP1412 (polyoxyethylene-polyoxypropylene copolymer), and the mixt. was layered on a PET film. The layer was transferred to a cleaned Cu surface with heat and pressure. The resist showed high photosensitivity, is easy to clean after exposure, and resists lifting by adhesive tape.

ST photoresist compn adhesive; sulfonamide polyether polyol photoresist compn

IT Resists
(photo-, sulfonamide deriv.- and polyether-polyol-contg., for good adhesion)

IT Electric circuits
(printed, photoresist compns. for, sulfonamide)

IT **70-55-3**, p-Toluenesulfonamide 9003-11-6, Polyoxyethylene-polyoxypropylene copolymer
RL: USES (Uses)
(photoresist contg., for good adhesion)

L2 ANSWER 21 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1988:29358 CAPLUS
DN 108:29358
TI Heat-developable diffusion-transfer photographic **photosensitive** unit
IN Nakamura, Koichi
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C001-00
ICS G03C001-00; G03C001-02
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 62183450	A2	19870811	JP 1986-25578	19860207

AB A fog-inhibiting and development-promoting sulfonamide deriv. is incorporated in the **photosensitive** layer of the unit to provide images with improved max. d. and sharpness. The **photosensitive** layer also contains a Ag halide, a reducing agent, and a polymg. compd. The sulfonamide deriv. has the formula R3SO2NR1R2 (R1, R2 = H, alkyl, cycloalkyl, aryl, aralkyl, heterocyclyl; R3 = alkyl, cycloalkyl, alkenyl, amino, aryl, aralkyl, heterocyclyl).
ST diffusion transfer photog fog inhibitor; sulfonamide diffusion transfer photog material
IT Photographic films
(diffusion-transfer, heat-developable, with **photosensitive** layer contg. fog-inhibiting and development-promoting sulfonamide deriv.)
IT **70-55-3** 98-10-2 3984-14-3 4108-90-1 5615-99-6 14501-83-8 22134-75-4 25999-04-6 59777-70-7 99791-31-8 109357-83-7 109357-84-8 112208-98-7
RL: USES (Uses)
(photog. fog inhibitor and development-promoting agent, heat-developable diffusion-transfer **photosensitive** unit contg.)

L2 ANSWER 22 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1987:587528 CAPLUS
DN 107:187528
TI Heat-developable photographic material
IN Iwagaki, Masaru; Komamura, Tawara; Tachibana, Kimie
PA Konishiroku Photo Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 35 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C007-00
ICS G03C001-06
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 62139549	A2	19870623	JP 1985-280824	19851213

AB In a heat-developable photog. material compressing a support and .gtoreq.1 heat-developable **photosensitive** layer and .gtoreq.1 nonphotosensitive layer, .gtoreq.1 nonphotosensitive protective layer is formed on the side of the support opposite that on which the heat-developable **photosensitive** layer is formed, a water-insol. solid melting preferably at .gtoreq.100.degree. is incorporated in the heat-developable **photosensitive** layer farthest from the support,

and a thermoplastic matting agent is incorporated in .gtoreq.1 of the nonphotosensitive protective layers. Surface tackiness and surface blooming are overcome to prevent unevenness in luster and optical d.

ST heat development photog material; **photosensitive** material heat development

IT Photothermographic copying
(materials for, with improved surface luster and decreased optical d. unevenness)

IT Photographic films
(heat-developable, with improved surface luster and decreased optical d. unevenness)

IT 55-21-0 64-10-8 **70-55-3** 98-10-2 103-81-1 103-89-9 619-55-6
RL: USES (Uses)
(heat-developable photog. film using)

IT 9003-53-6 9011-14-7 55765-89-4
RL: USES (Uses)
(matting agent, heat-developable photog. film using)

L2 ANSWER 23 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1987:544975 CAPLUS
DN 107:144975
TI **Photosensitive** thermal recording materials
IN Yamaguchi, Jun
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41M005-18
ICS G03C001-56
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62073991	A2	19870404	JP 1985-214192	19850927

AB **Photosensitive** thermal recording materials contg. diazosulfonate derivs., couplers, and coloration promoting agents are claimed in which .gtoreq.1 of the above constituents is microencapsulated. The material is useful in nonimpact printing and produces prints with good color d. and without fog, and also shows improved storage stability. A recording material was prepd. by applying (1) a microcapsule soln. contg. Na 4-(4'-tolylthio)-2,5-diethoxybenzenediazosulfonate, (2) a dispersion contg. 2-hydroxy-3-naphthoic acid as a coupler, (3) 3 dispersions contg. Unibur-70, Hidorin Z-7, and Selosol A, sep., as pigments, and (4) dispersions contg. p-hydroxybenzyl ether and/or p-xylene sulfonamide sep. as coloration promoting agents on a support.

ST **photosensitive** thermal recording material; diazosulfonate nonimpact printing thermal

IT Printing, nonimpact
(thermal, diazo compd.-based **photosensitive** materials for, microcapsule-contg.)

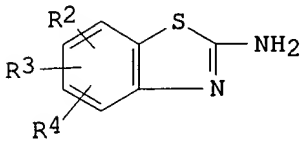
IT **70-55-3**
RL: USES (Uses)
(coloration promoting agents, dispersion contg., for **photosensitive** thermal recording materials)

IT 471-34-1, uses and miscellaneous 557-05-1, Hidorin Z-7 110494-55-8
RL: USES (Uses)
(dispersion contg. pigment from, for **photosensitive** thermal recording materials)
IT 92-70-6, 2-Hydroxy-3-naphthoic acid
RL: USES (Uses)
(dispersion contg., as coupling agent, for **photosensitive** thermal recording materials)
IT 36429-19-3 78132-95-3
RL: USES (Uses)
(**photosensitive** thermal recording materials with microcapsules contg.)

L2 ANSWER 24 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1987:544912 CAPLUS
DN 107:144912
TI **Photosensitive** polymer compositions
IN Masaoka, Kazutaka; Kamio, Kenji; Kakumaru, Hajime
PA Hitachi Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C001-68
ICS G03C001-00
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62063933	A2	19870320	JP 1985-204668	19850917

GI



I

AB The title compns. contain RR1(C6H3)SO2NH2 (R, R1 = H, C .ltoreq.4 alkyl, C.ltoreq.4 alkoxy, OH, NO2) and I (R2, R3, R4 = H, C.ltoreq.4 alkyl, C.ltoreq.4 alkoxy, NH2, OH), an org. halo compd., ethylenically unsatd. compds., film-forming polymers, and sensitizers generating free radicals with actinic rays. The compns. useful as resists for etching or plating have improved releasability and good etching characteristics.
ST photoresist ethylenic monomer mixt; **photosensitive** polymer compn benzothiazole; sulfonamide arom photoresist compn
IT Resists
(photo-, contg. arom. sulfonamide and benzothiazole deriv.)
IT 9010-88-2, Ethyl acrylatemethyl methacrylate copolymer 85334-81-2
RL: USES (Uses)
(film-forming polymer, photoresist compn. contg., in presence of benzothiazole deriv and arom. sulfonamide)
IT 136-95-8, 2-Aminobenzothiazole
RL: USES (Uses)

(photoresist compn. contg. arom. sulfonamide and)

IT **70-55-3**, p-Toluenesulfonamide
RL: USES (Uses)
(photoresist compn. contg. benzothiazole deriv. and)

IT 17025-47-7, Tribromomethylphenyl sulfone
RL: TEM (Technical or engineered material use); USES (Uses)
(photoresist compn. contg., in presence of arom. sulfonamide and benzothiazole dereiv.)

IT 88-24-4 3524-68-3, Pentaerythritol triacrylate 15625-89-5, Trimethylolpropane triacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(photoresist compn. contg., in presence of arom. sulfonamide and benzothiazole deriv.)

IT 126-58-9
RL: TEM (Technical or engineered material use); USES (Uses)
(photoresist compns. contg., in presence of arom. sulfonamide and benzothiazole deriv.)

L2 ANSWER 25 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1987:449574 CAPLUS
DN 107:49574
TI **Photosensitive** resin composition
IN Takenaka, Fumio; Ito, Masanori; Toya, Koji
PA Daicel Chemical Industries, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C001-00
ICS G03F007-00
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61190330	A2	19860825	JP 1985-31843	19850220

AB A **photosensitive** resin compn. is comprised of a .beta.-diketone or its deriv. of the formula RCOCH2COR1 (R, R1 = alkyl, Ph, substituted Ph, halogenated alkyl, furyl, thienyl) and a compd. with b.p .gtoreq.70.degree.. The claimed compn. has good bonding properties to a metal surface and is useful as a photoresist for printed circuit board fabrication. A compn. contg. poly(Me methacrylate) 50, trimethylolpropane triacrylate 16, tetraethylene glycol diacrylate 13, benzophenone 0.15, bisdimethylaminobenzophenone 1.5, and dibenzoylmethane 0.2 g in MEK 120 g was coated on a PET film to give a 50-.mu.m photoresist layer. The layer was bonded to a Cu plate under pressure and exposed patternwise to a Hg arc. After the film was removed, the resist layer was treated with MeCCl3 to give a resist pattern, which was sufficiently resistant to peeling off with a cellophane tape.

ST **photosensitive** resin compn diketone deriv; photoresist diketone deriv circuit board

IT Ketones, uses and miscellaneous
RL: USES (Uses)
(1,3-di-, photoresists compns. contg., for elec. circuit board)

IT Resists
(photo-, contg. diketone for elec. board fabrication)

IT Electric circuits
(printed, photoresists contg. diketone for fabrication of)
IT 119-61-9, Benzophenone, uses and miscellaneous 34077-97-9
RL: USES (Uses)
(photoresists compns. contg. diketone and, for elec. circuit board fabrication)
IT 9011-14-7 15625-89-5, Trimethylolpropane triacrylate 17831-71-9, Tetraethylene glycol diacrylate
RL: USES (Uses)
(photoresists contg. diketone and, for elec. circuit board fabrication)
IT **70-55-3**, p-Toluenesulfonamide 90-94-8, Michler's ketone 120-46-7, Dibenzoylmethane 1138-14-3 2580-56-5 3524-68-3, Pentaerythritol triacrylate 5910-23-6 25790-35-6 32267-05-3
RL: USES (Uses)
(photoresists contg., for elec. circuit board fabrication)

L2 ANSWER 26 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1986:524265 CAPLUS
DN 105:124265
TI Photopolymerization initiator comprised of thioxanthones and oxime esters
IN Itoh, Masanori; Takenaka, Fumio; Tohya, Kouzi
PA Daicel Chemical Industries, Ltd., Japan
SO U.S., 5 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM G03C001-68
NCL 430281000
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4590145	A	19860520	US 1985-750703	19850628
	GB 2178047	A1	19870204	GB 1985-17863	19850716
	GB 2178047	B2	19890719		
PRAI	US 1985-750703		19850628		

AB Photopolymerizable compns. for prepn. of photoresists and photocuring-type inks and paints are comprised of .gtoreq.1 ethylenically unsatd. compd., a polymer binder, and a photopolymn. initiator compn. comprised of thioxanthone or its deriv. and an oxime ester RR1C=NOCOR2 [R,R1 = C1-10 alkyl, Ph, naphthyl, anthryl, pyridyl or quinolyl or R and R1 may be bonded together to form a ring; R2 = C1-5 alkyl, aryl]. Thus, a photopolymerizable compn. comprised of Bu acrylate-methyacrylic acid-Me methacrylate copolymer 50, trimethyolpropane triacrylate 30, benzotriazole 0.2, N-methyldiethanolamine 0.05, Victoria Blue 0.04, 2-chlorothioxanthone 0.1, 4-methylbenzophenone oxime acetate 1.5, Me Et ketone 45, and dioxane 60 g was prepd., coated on a film support, dried to give a 25-.mu. **photosensitive** film, laminated onto a Cu plate by means of a film, laminated onto a Cu plate by means of a rubber roll heated to 100.degree., exposed to a 2-kW ultrahigh-pressure Hg lamp at 50 cm for 10 s through a stuffer step tablet, and developed with a 1% Na2CO3 soln. at 40.degree. to

give a high-quality image of up to the e 6th step.
ST thioxanthone oxime ester photopolymn initiator; photoresist oxime ester photopolymn initiator; photocurable ink oxime ester thioxanthone
IT Inks
(photocuring-type, photopolymerizable compns. contg. polymer and ethylenically unsatd. compd. and thioxanthone deriv. and oxime ester for)
IT Resists
(photo-, photopolymerizable compns. contg. polymer and ethylenically unsatd. compd. and thioxanthone deriv. and oxime ester for)
IT Photoimaging compositions and processes
(photopolymerizable, contg. polymer and ethylenically unsatd. compd. and thioxanthone deriv. and oxime ester)
IT Electric circuits
(printed, photopolymerizable compns. contg. polymer and ethylenically unsatd. compd. and thioxanthone deriv. and oxime ester for fabrication of)
IT 9011-14-7 25035-69-2
RL: USES (Uses)
(photopolymerizable compns. contg. ethylenically unsatd. compd. and thioxanthone deriv. and oxime ester and, for photoresist and photocuring-type inks and coating materials)
IT 86-39-5 492-22-8 76293-13-5 82799-44-8
RL: USES (Uses)
(photopolymerizable compns. contg. polymer and ethylenically unsatd. compd. and oxime ester and, for photoresist and photocuring-type inks and coating materials)
IT **70-55-3** 88-19-7 95-14-7 105-59-9 603-48-5 1707-68-2 13733-91-0 56646-84-5
RL: USES (Uses)
(photopolymerizable compns. contg. polymer and ethylenically unsatd. compd. and thioxanthone deriv. and oxime ester and, for photoresist and photocuring-type inks and coating materials)
IT 101212-85-5
RL: USES (Uses)
(photopolymerizable compns. contg. polymer and ethylenically unsatd. compd. and thioxanthone deriv. and, for photoresist and photocuring-type inks and coating materials)
IT 15625-89-5 17831-71-9
RL: USES (Uses)
(photopolymerizable compns. contg. polymer and thioxanthone deriv. and oxime ester and, for photoresist and photocuring-type inks and coating materials)

L2 ANSWER 27 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1986:488717 CAPLUS
DN 105:88717
TI Heat-developable color photographic **photosensitive** material containing sulfonamide
IN Hirai, Hiroyuki; Yabuki, Yoshiharu; Takeuchi, Masashi; Aono, Toshiaki
PA Fuji Photo Film Co., Ltd. , Japan
SO U.S., 16 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM G03C001-40
ICS G03C005-54

NCL 430559000
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4590154	A	19860520	US 1985-730925	19850506
PRAI	JP 1985-89624		19850504		

AB A heat-developable, color photog. material capable of producing color images having a high max. d. with decreased fog even when developed at relatively low temps. and for short periods of time is composed of a **photosensitive** Ag halide, a hydrophilic binder, a dye-releasing compd., and a sulfonamide deriv. of the formula RSO2NH2 (R = alkyl, alkenyl, alkynyl, aralkyl, aryl, or heterocyclyl). Thus, a PET support was coated at 30 .mu.m (wet) with a compn. contg. a gelatin-Ag(Br,I) emulsion 25, a magenta dye-releasing compd. 33 g, a 5% aq. soln. of p-C9H19C6H4O(CH2CH2O)10H 10 mL, a soln. of guanidine trichloroacetate 1.5 g in EtOH 15 mL, and a soln. of PhSO2NH2. The resultant material was then coated with a gelatin-based protective layer, imagewise exposed for 10 s to a 2000 lx W lamp, heated 20 s at 140.degree., combined with a dye-fixing material, and heated 6 s at 80.degree. to give a neg. magenta image with a Dmax of 2.1 and a Dmin of 0.20.

ST sulfonamide heat developable color photog; photothermog color diffusion transfer sulfonamide

IT Photothermography
(color, diffusion-transfer, materials for, contg. sulfonamide deriv. for improved image d. and decreased fog)

IT 10025-87-3
RL: USES (Uses)
(ammonium reaction with sodium bis(methoxycarbonyl)benzenesulfone in presence of)

IT **70-55-3** 98-10-2 98-64-6 2438-38-2 3306-62-5 3701-01-7 4563-33-1 21431-21-0 22134-75-4 53595-66-7 65501-71-5 99791-31-8
99791-32-9
RL: USES (Uses)
(color diffusion-transfer photothermog. materials contg., for improved image d. and decreased fog)

IT 103826-87-5P
RL: PREP (Preparation)
(prepn. and color diffusion-transfer photog. applications of)

IT 3965-55-7
RL: RCT (Reactant)
(reaction of, with ammonium in presence of phosphorus oxychloride)

IT 63-74-1
RL: RCT (Reactant)
(reaction of, with pivaloyl chloride)

IT 14798-03-9, reactions
RL: RCT (Reactant)
(reaction of, with sodium bis(methoxycarbonyl)benzenesulfone in presence of phosphorus oxychloride)

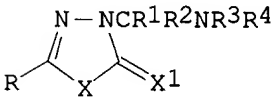
IT 3282-30-2
RL: RCT (Reactant)
(reaction of, with sulfonamide)

L2 ANSWER 28 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1986:197092 CAPLUS

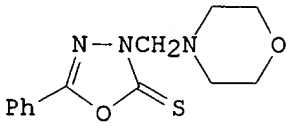
DN 104:197092
TI **Photosensitive** compositions with improved stability
IN Maeda, Minoru; Iwasaki, Masayuki; Shinozaki, Fumiaki
PA Fuji Photo Film Co., Ltd. , Japan
SO Ger. Offen., 23 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM G03F007-00
ICS G03C001-72
CC 74-10 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 3517173	A1	19851114	DE 1985-3517173	19850513
JP 60239744	A2	19851128	JP 1984-96257	19840514
JP 04026458	B4	19920507		
PRAI JP 1984-96257		19840514		

GI



I



II

AB **Photosensitive** compns. having improved stability and a visible contrast between the exposed and nonexposed regions are composed of a leuco dye, a photooxidant, and .gtoreq.1 heterocyclic compd. of the formula I (R = H, substituted or unsubstituted alkyl, aryl, amino, or aralkyl; R1, R2 = H, substituted or unsubstituted alkyl, aryl, or aralkyl;
R3, R4 = H, substituted or unsubstituted alkyl, aryl, aralkyl, or together
form a pyrroline, piperidine, morpholine, or N-substituted piperazine ring; X = O, S, NCR1R2NR3R4, or NR5 where R5 = H, alkyl, or aryl; X1 = O or S). The compns. can be used for the prodn. of various types of printing plates and photoresists and in optical reprodn. Thus, a poly(ethylene terephthalate) support was coated at 30 .mu.m (dry) with a compn. contg. poly(Me methacrylate) 15, trimethylolpropane triacrylate 8.5, p-toluenesulfonamide 1.62, p-methoxyphenol 0.005, malachite green 0.015, 4,4'-bis(dimethylamino)benzophenone 0.04, benzophenone 0.15, tribromomethyl Ph sulfone 0.37, leuco crystal violet 0.08, II 0.01, and MeCOEt 45 g. The resultant material was then stored 168 h at 45.degree. and 75% relative humidity to show a d. (support + fog) of 0.37 vs. 0.53 for a II-free control and 0.57 for a control contg. thiourea in place of II.

ST photoimaging compn improved stability; heterocycle photoimaging compn stability

IT Photoimaging compositions and processes
(contg. heterocyclic compd. and leuco dye for improved stability and image contrast)

IT Lithographic plates
(hetercyclic compd.-contg. photoimaging compns. with improved stability

for fabrication of)

IT Resists
(photo-, contg. heterocyclic compd. for improved stability)

IT Polyesters, uses and miscellaneous
RL: USES (Uses)
(unsatd., photoimaging compn. contg. heterocyclic compd. and, for improved stability)

IT **70-55-3** 90-94-8 117-81-7 119-61-9, uses and miscellaneous
150-76-5 569-64-2 603-48-5 1042-84-8 9011-14-7 15625-89-5
17025-47-7 32630-58-3 42573-57-9 55199-85-4
RL: USES (Uses)
(photoimaging compn. contg. heterocyclic compd. and, for improved stability)

IT 23289-00-1 97054-56-3 101969-88-4 101969-89-5 101969-90-8
101996-39-8
RL: USES (Uses)
(photoimaging compn. contg., for improved stability)

L2 ANSWER 29 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1986:43215 CAPLUS
DN 104:43215
TI Heat developable color photographic light-sensitive material
IN Hirai, Hiroyuki; Yabuki, Yoshiharu; Takeuchi, Masashi; Aono, Toshiaki
PA Fuji Photo Film Co., Ltd. , Japan
SO Eur. Pat. Appl., 66 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G03C005-54
ICS G03C001-02
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 160313	A2	19851106	EP 1985-105366	19850502
EP 160313	A3	19870513		
EP 160313	B1	19890823		
R: DE, GB				
JP 60232547	A2	19851119	JP 1984-89624	19840504
JP 04013701	B4	19920310		
PRAI JP 1984-89624		19840504		

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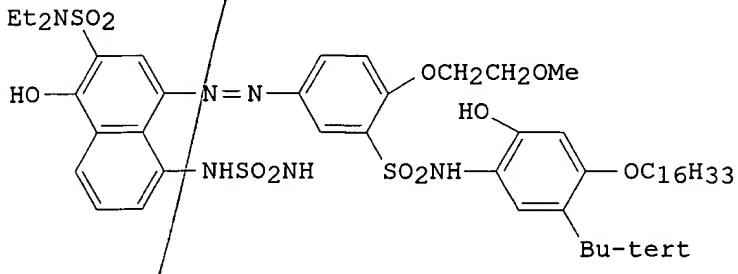

II

AB Photothermog. **photosensitive** materials contain a

photosensitive Ag halide, a hydrophilic binder, a dye-releasing compd. capable of reducing exposed Ag halide and of reacting with exposed Ag halide upon heating to release a mobile dye, and a sulfonamide of the formula RSO2NH2 [I; R = alkyl, alkenyl, C.gtoreq.4 alkynyl, aralkyl, aryl, heterocyclyl (bonded with SO2NH through a C atom of the ring)]. The preferred amt. of I is 0.05-2.0 mol/mol Ag. Thus, a Ag(Br,I) emulsion, a dispersion of II in a gelatin soln., an aq. p-C9H19C6H4O(CH2CH2O)10H soln., a guanidine trichloroacetate soln. (in EtOH), and a soln. of PhSO2NH2 (III) were mixed and coated on a polyester film support to give a photothermog. film. The film was imagewise exposed (2000 lx), developed at 140.degree., and contacted with a wet receptor sheet having dye-mordanting layer at 80.degree. to give a magenta dye image with a Dmax and a Dmin of 2.10 and 0.20, resp., vs. 1.03 and 0.18, resp., for a III-free control.

ST photothermog **photosensitive** material silver halide; sulfonamide additive photothermog film

IT Photothermography
(**photosensitive** materials contg. silver halide and dye-releasing compd. and sulfonamide for, with improved contrast)

IT 22257-44-9 94939-43-2 99791-34-1
RL: USES (Uses)
(color photothermog. **photosensitive** materials contg. sulfonamide deriv. and, with improved contrast)

IT 69459-11-6 78369-13-8 92339-51-0 99791-33-0
RL: USES (Uses)
(dye-releasing compd., color photothermog. **photosensitive** materials contg.sulfonamide deriv. and, with improved contrast)

IT **70-55-3** 88-19-7 98-10-2 98-64-6 2438-38-2 3306-62-5 3701-01-7 4563-33-1 21431-21-0 22134-75-4 53595-66-7 65501-71-5 99791-31-8 99791-32-9
RL: USES (Uses)
(photothermog. materials contg. silver halide and dye-releasing compd. and, for improved contrast)

L2 ANSWER 30 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1984:43087 CAPLUS
DN 100:43087
TI **Photosensitive** coatings containing crosslinked beads
IN Cohen, Abraham Bernard; Webers, Vincent Joseph
PA du Pont de Nemours, E. I., and Co. , USA
SO Eur. Pat. Appl., 42 pp.
CODEN: EPXXDW
DT Patent
LA English
IC G03F007-02; G03C001-68
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 92783	A2	19831102	EP 1983-103825	19830420
	EP 92783	A3	19850522		
	EP 92783	B1	19871111		
	R: BE, DE, FR, GB				
	JP 58190945	A2	19831108	JP 1983-69277	19830421

JP 03036209 B4 19910530
US 4551415 A 19851105 US 1984-611870 19840518
PRAI US 1982-370991 19820422
AB A **photosensitive** compn. useful as a dry film resist for printed circuits and lithog. plates comprises an ethylenically unsatd. monomer, a photoinitiator, an org. polymeric binder and nonswellable nonagglomerating crosslinked polymer beads (0.1-4 .mu. av. diam.). Thus, a moving poly(ethylene terephthalate) web was coated with a compn. contg. trimethylolpropane triacrylate 13.10, PMMA 6.62, tetraethylene glycol diacrylate 13.1, Michler's ketone 0.106, benzophenone 3.517, bis(2-o-chlorophenyl-4,5-bisphenyl)imidazole 2.193, tris(4-diethylamino-o-tolyl)methane 0.132, 4,4',4''-methylidyne-tris(N,N-dimethylaniline) 0.088, Victoria Green 0.03, Monostral Green 0.098, a mixt. of o- and p-toluenesulfonamide 5.275, benzotriazole 0.176, p-toluenesulfonic acid 0.044, crosslinked beads of trimethylolpropane triacrylate copolymer 55.52, and CH2Cl2 196.2 parts to give a dry coating thickness of 50.8 .mu. and dried in a 3-chamber dryer with temps. 38, 66, and 121.degree.. The dry coating was laminated to a Cu board at 104.2.degree., imagewise exposed, and developed with Me chloroform to give an image. The elongation to break the dry coating compn. was 700%.
ST **photosensitive** compn dry film photoresist; crosslinked polymer bead dry photoresist; printed circuit dry film photoresist
IT Polyesters, uses and miscellaneous
RL: PREP (Preparation)
(acrylic, crosslinked, **photosensitive** compns. contg. nonswelling beads of, for prepn. of dry film photoresists)
IT Resists
(photo-, dry film, **photosensitive** compn. for prepn. of, contg. nonswelling crosslinked polymer beads)
IT Electric circuits
(printed, **photosensitive** compn. for prepn. of dry photoresist film for fabrication of, contg. crosslinked nonswelling polymer beads)
IT 25101-30-8 36446-02-3 88325-67-1
RL: USES (Uses)
(crosslinked, **photosensitive** compn. contg. non-swelling beads from, dry resist film prepn. from)
IT 88403-05-8
RL: USES (Uses)
(dry photoresist film prepd. from **photosensitive** compn. contg. crosslinked nonswelling polymeric beads and, printed circuits fabrication with)
IT **70-55-3** 88-19-7 90-94-8 95-14-7 104-15-4, properties 119-61-9, properties 603-48-5 1707-68-2 4482-70-6 9011-14-7 12000-21-4 15625-89-5 17831-71-9 56590-41-1
RL: USES (Uses)
(**photosensitive** compn. contg. nonswelling crosslinked polymeric beads and, dry resist film fabrication from)

L2 ANSWER 31 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1983:152822 CAPLUS
DN 98:152822
TI Phthalaldehyde adduct and image-forming compositions incorporating them
IN DoMinh, Thap; Stern, Max Herman
PA Eastman Kodak Co., USA

SO Eur. Pat. Appl., 48 pp.
CODEN: EPXXDW
DT Patent
LA English
IC C07D521-00; C07D209-48; C07D307-88; G03C001-72
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 67714	A2	19821222	EP 1982-303108	19820615
	EP 67714	A3	19830928		
	R: DE, FR, GB				
	US 4410623	A	19831018	US 1981-273544	19810615
	CA 1166247	A1	19840424	CA 1981-392199	19811214
	JP 58010567	A2	19830121	JP 1982-102948	19820615
	US 4596876	A	19860624	US 1983-532118	19830914
PRAI	US 1981-273544		19810615		

OS CASREACT 98:152822
AB A photoimaging compn. contains (1) a compd. capable of generating an amine and (2) a nonvolatile adduct of phthalaldehyde which produces a dye when heated for 10 s at 135.degree. in the presence of an amine. Thus, a subbed poly(ethylene terephthalate) support was coated with a compn. contg. poly(ethylene-1,4-cyclohexylenedimethylene-1-methyl-2,4-benzenedisulfonamide) binder (15 wt.% in Me2CO) 10, hexamminecobalt(III) trifluoroacetate 0.24, 2-isopropoxy-1,4-naphthoquinone (photoreductant) 0.016, SF-1066 Surfactant 0.1 g, and 1,3-dihyedroxy-N-(4-chlorobenzenesulfonyl)isoindoline 3 mmol, imagewise exposed for 30 s, and heated at 135.degree. for 10 s to produce a neg. image with Dmax/Dmin 3.06/0.02 vs. 1.91/0.03 for a control contg. phthalaldehyde instead of the isoindoline deriv.
ST phthalaldehyde adduct photothermog; heat developable photoimaging isoindoline deriv
IT Photothermography
(**photosensitive** compns. for, contg. isoindoline or phthalan deriv)
IT Surfactants
(photothermog. compns. contg.)
IT 62814-40-8
RL: USES (Uses)
(binder, for photothermog. compns.)
IT 26268-92-8 59561-55-6 81110-86-3 81110-88-5 81110-89-6
81110-90-9 81110-91-0 81110-92-1 81110-93-2 81110-94-3
81110-96-5 81110-97-6 81110-99-8 81111-00-4 81111-02-6
81111-04-8 81111-05-9 81111-06-0 81111-07-1 81111-08-2
81111-09-3 81111-10-6 81176-04-7 85316-55-8 85316-56-9
85316-57-0 85316-58-1 85316-59-2 85316-60-5 85322-71-0
RL: USES (Uses)
(heat-developable photoimaging compns. contg. amine-providing compd. and)
IT 53626-49-6 81111-03-7
RL: USES (Uses)
(photothermog. compns. contg.)
IT 643-79-8
RL: RCT (Reactant)
(reaction of, with amides in prepn. of imaging compns.)

IT **70-55-3** 109-01-3 594-65-0 683-72-7
RL: RCT (Reactant)
(reaction of, with phthalaldehyde in prepn. of photothermog. compn.)

L2 ANSWER 32 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1980:577219 CAPLUS
DN 93:177219
TI Photothermographic materials
IN Akiyama, Minoru; Akashi, Hiroyasu; Shiga, Tetsuo; Matsui, Takeki; Hayashi,
Yoshio; Kimura, Takeo; Kobayashi, Hidehiko
PA Asahi Chemical Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC G03C001-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 55004061	A2	19800112	JP 1978-76988	19780627
	JP 61045822	B4	19861009		

AB A photothermog. material contains (1) an org. Ag salt type oxidizing agent, (2) a reducing agent for Ag ions, (3) a **photosensitive** Ag compd. or its precursors, and (4) a sulfonamide of the general formula RSO2NH2 (R = alkyl, aryl, cycloalkyl, aralkyl) as a tone-controlling agent. The photothermog. material gives copy with pure black images. Thus, a poly(vinyl butyral) soln. (1 g/10 g Me2CO) 0.5 g CaBr2 5, tert-butylhydroquinone 15, benzenesulfonamide (I) 15, and Hg(OAc)2 0.1 mg were added to a Ag behenate dispersion (3 g Ag behenate and vinyl butyral polymer 0.6 g in 10% Me2CO-MePh mixt.) 1.5 g. The dispersion was coated on a film support, exposed (imagewise) for 1/4 s, and developed at 120.degree. (3 s) to give Dmax and Dmin of 1.58 and 0.08, resp., vs 0.27 and 0.08, resp. for a control with benzenesulfonanilide instead of I.
ST photothermog tone controlling agent; sulfonamide tone controlling agent
IT Photothermography
(tone controlling agents for, sulfonamides as)
IT 119-47-1 1600-27-7 1948-33-0 2489-05-6 4525-46-6 7553-56-2, uses
and miscellaneous 7789-41-5 38486-36-1
RL: USES (Uses)
(photothermog. compns. contg.)
IT **70-55-3** 88-19-7 98-10-2 98-64-6 121-52-8 121-61-9
138-41-0 606-25-7 701-34-8 1129-26-6 1576-43-8 1576-47-2
2438-38-2 3144-09-0 6162-21-6 7720-45-8 16993-47-8 17286-26-9
24243-71-8 60199-80-6 69112-89-6 73945-39-8
RL: USES (Uses)
(photothermog. tone controlling agent)

L2 ANSWER 33 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1977:148848 CAPLUS
DN 86:148848
TI Free radical **photosensitive** materials
IN Wainer, Eugene; Shirey, John E.; Ramins, Lothar
PA Horizons Inc., Division of Horizons Research Inc., USA
SO U.S., 6 pp.
CODEN: USXXAM

DT Patent
LA English
IC G03C001-52
NCL 096090000R
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3986880	A	19761019	US 1974-500117	19740823

AB The shelf life of a free-radical photog. compn. contg. arylamines and an org. halogen compd. is improved by including an alc. or a phenol deriv., a trialkyl or triaryl phosphate and triphenylcarbinol. Thus, a soln. prepd. from triphenylamine 26, triphenylstibine 16, triethylamine 64, 1,1-bis(p-dimethylaminophenyl)ethylene 80, CHI3 360, 4-aminopyrene 12, acetanilide 12, 4-phenylpyridine N-oxide 24, N-vinylcarbazole 2, 3,6-diisopropylcatechol (I) 5, triphenyl phosphate (II) 10, triphenylcarbinol (III) 75 mg, a polystyrene soln. (27 g in PhMe 100 mL) 4, a poly(phenylene oxide) soln. (18 g in CCl2CHCl 100 mL) 1 and 1,2-dichloroethane 2 mL was coated on a poly(ethylene terephthalate) support as a 0.003 in. layer, dried, exposed to a high-pressure Hg lamp and fixed by heating at 160.degree. for 2 min to give an image with a speed of 98 mJ (for a net d. (Dmax-Dmin) of 1.0), a fog of 0.04 and a .gamma. of 2.3 for a fresh film and 87 mJ, 0.05 and 2.0, resp., for a film stored for weeks vs. 165 mJ, 0.04 and 1.6 and 220 mJ, 0.2 and 1.0, resp., for a control using 2,6-di-tert-butylcresol in the place of I, II and III.

ST free radical photog compn; aryl phosphate photog compn; alc stabilizer photog compn; phenol stabilizer photog compn; phenylcarbinol photog compn

IT Photothermography
(**photosensitive** compns. contg. aryl amines, org. halogen compd., triaryl phosphate, phenol deriv. and triphenylcarbinol for)

IT Alcohols, uses and miscellaneous
RL: USES (Uses)
(**photosensitive** compns. contg. aryl amines, org. halogen compd., triaryl phosphate, triphenylcarbinol and, photog. image formation)

IT Amines, uses and miscellaneous
RL: USES (Uses)
(aryl, **photosensitive** compns. contg. org. halogen compd., triaryl phosphate, phenol deriv., triphenylcarbinol and, for photog. image prodn.)

IT Photoimaging compositions and processes
(free-radical, contg. aryl amines, org. halogen compd., triaryl phosphate, phenol deriv. and triphenylcarbinol)

IT **70-55-3** 78-51-3 84-74-2 112-62-9 115-86-6 117-81-7 126-72-7 298-07-7 7260-11-9
RL: USES (Uses)
(**photosensitive** compns. contg. aryl amines, org. halogen compd., phenol deriv., triphenylcarbinol and, for photog. image prodn.)

IT 76-84-6
RL: USES (Uses)
(**photosensitive** compns. contg. aryl amines, org. halogen compd., triaryl phosphate, phenol deriv. and, for photog. image prodn.)

IT 59-31-4 76-09-5 77-85-0 80-04-6 87-66-1 88-58-4 91-01-0
98-29-3 105-08-8 108-46-3, uses and miscellaneous 120-80-9, uses and
miscellaneous 121-79-9 123-31-9, uses and miscellaneous 131-56-6
142-30-3 148-24-3, uses and miscellaneous 452-86-8 528-21-2
533-73-3 575-44-0 934-00-9 1020-31-1 5154-01-8 62555-80-0
RL: USES (Uses)
(**photosensitive** compns. contg. aryl amines, org. halogen compd., triaryl phosphate, triphenylcarbinol and, photog. image formation)

IT 20748-66-7
RL: USES (Uses)
(**photosensitive** compns. contg. aryl amines, organohalogen compd., triarylphosphate, triphenylcarbinol and, photog. image formation)

IT 558-13-4
RL: USES (Uses)
(**photosensitive** compns. contg. aryl amines, triaryl phosphate, phenol deriv., triphenylcarbinol and, for photog. image formation)

IT 75-47-8
RL: USES (Uses)
(**photosensitive** compns. contg. aryl amines, triarylphosphate, phenol deriv., triphenylcarbonyl and, for photog. image formation)

IT 83-07-8 103-84-4 121-44-8, uses and miscellaneous 603-34-9
603-36-1 1131-61-9 1484-13-5 7478-69-5 13080-52-9 51279-53-9
62555-79-7
RL: USES (Uses)
(**photosensitive** compns. contg. org. halogen compd., triaryl phosphate, phenol deriv., triphenylcarbinol and, for photog. image prodn.)

L2 ANSWER 34 OF 34 CAPLUS COPYRIGHT 2001 ACS
AN 1975:506235 CAPLUS
DN 83:106235
TI **Photosensitive** resin compositions
IN Komatsubara, Yukio; Miyazawa, Shozo; Nakane, Hisashi
PA Tokyo Ohka Kogyo Co., Ltd., Japan
SO Japan. Kokai, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
NCL 116A415
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 50036204	A2	19750405	JP 1973-87091	19730802
JP 56001618	B4	19810114		

AB A **photosensitive** resin compn. consists of an alc.-sol. aldehyde-modified copolymer polyamide, obtained by treating a polyamide with an aldehyde either in the absence or presence of an alc. or mercaptan, .gtoreq.1 plasticizers selected from o-MeC6H4SO2NH2, p-MeC6H4SO2NH2, or MeC6H4SO2NHEt, an alkyldimethylbenzylammonium halide surfactant, an acrylic photopolymerizable monomer, a photopolymn. initiator, and a thermal polymn. inhibitor. These compns. are esp. useful in prepg. flexog. printing plates. Thus, a soln. of a Nylon 6-Nylon

66-Nylon 610 terpolymer 1 kg in MeOH 3 kg, was treated with HCHO 0.5, and 85% H3PO4 0.5 kg at 65.degree. for 4 hr. The reaction mixt. was then poured into Me2CO-H2O (1:1), the polymer filtered off, washed, and dried. The polymer 100, MeOH 20, N,N'-methylenebisacrylamide 10, diacetoneacrylamide 20, N-methylolacrylamide 10, Ph2CO 3, 2,6-di-tert-butylcresol 0.3, p-MeC6H4SO2NH4 40, and alkyldimethylbenzylammonium chloride 30 parts were heated together, extruded onto a polyester film, and hot-air dried to give a **photosensitive** plate. An exposure through a pattern with 6 20-W lamps for 15 min. and developing with a MeOH-Me2CO soln., a 1.5 mm relief was obtained. The rubber hardness of this plate was 55 degrees and the plate manifested superior printing qualities when used with both water-based and oil-based inks.

ST polyamide flexog printing plate

IT Polyamides, uses and miscellaneous
RL: USES (Uses)
(aldehyde-modified, photopolymerizable compns. contg. acrylic monomers, photopolymn. initiator, and, for flexographic printing plates)

IT Quaternary ammonium compounds, uses and miscellaneous
RL: USES (Uses)
(alkyldimethylbenzyl, surfactants, photopolymerizable compns. contg. aldehyde-modified polyamides, acrylic monomers, photopolymn. initiator, and, for flexographic printing plates)

IT Surfactants
(alkyldimethylbenzylammonium halides, photopolymerizable compns. contg. aldehyde-modified polyamides, acrylic monomers, photopolymn. initiator, and, for flexographic printing plates)

IT Printing plates
(flexog., photopolymerizable compns. contg. aldehyde-modified polyamides, acrylic monomers, and photopolymn. initiator for)

IT Aldehydes, uses and miscellaneous
RL: USES (Uses)
(polyamides modified by, photopolymerizable compns. contg. acrylic monomers, photopolymn. initiator, and, for flexographic printing plates)

IT Plasticizers
(toluene sulfonamides, photopolymerizable compns. contg. aldehyde-modified polyamides, acrylic monomers, photopolymn. initiator, and, for flexographic printing plates)

IT 1,6-Hexanediamine, polymer with decanedioic acid, hexahydro-2H-azepin-2-one and hexanedioic acid, reaction products with formaldehyde
2H-Azepin-2-one, hexahydro-, polymer with decanedioic acid, 1,6-hexanediamine and hexanedioic acid, reaction products with formaldehyde
Decanedioic acid, polymer with hexahydro-2H-azepin-2-one, 1,6-hexanediamine and hexanedioic acid, reaction products with formaldehyde
Hexanedioic acid, polymer with decanedioic acid, hexahydro-2H-azepin-2-one and 1,6-hexanediamine, reaction products with formaldehyde
RL: USES (Uses)
(photopolymerizable compns. contg. acrylic monomers, photopolymn. initiator, and, for flexographic printing plates)

IT 110-26-9 924-42-5 2873-97-4
RL: USES (Uses)
(photopolymerizable compns. contg. formaldehyde-modified polyamides, photopolymn. initiator, and, for flexographic printing plates)
IT 119-61-9, uses and miscellaneous
RL: USES (Uses)
(photopolymn. initiator, photopolymerizable compns. contg. formaldehyde-modified polyamides, acrylic monomers, and, for flexographic printing plates)
IT **70-55-3**
RL: MOA (Modifier or additive use); USES (Uses)
(plasticizer, photopolymerizable compns. contg. formaldehyde-modified polyamides, acrylic monomers, and, for flexographic printing plates)
IT 25377-21-3
RL: USES (Uses)
(thermal polymn. inhibitor, photopolymerizable compns. contg. formaldehyde-modified polyamides, acrylic monomers, and, for flexog. printing plates)

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
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